PB 168869

Public Awareness and Concern with Air Pollution in the St. Louis Metropolitan Area

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Public Health Service

PUBLIC AWARENESS AND CONCERN WITH AIR POLLUTION IN THE ST. LOUIS METROPOLITAN AREA

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Prepared For:

Division of Air Pollution
Public Health Service
Contract No. PH 86-63-131

May 1965
U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Division of Air Pollution
Washington, D.C. 20201

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ACKNOWLEDGEMENTS

The coding, tabulation, and analysis of the survey data on which this report is based was performed by the Public Administration and Metropolitan Affairs Program of Southern Illinois University. This organization also cooperated with the National Opinion Research Center, Chicago, in designing the sample population and in constructing the survey questionnaire. The National Opinion Research Center conducted pretesting of the questionnaire and performed the interviewing from which the survey data was gathered.

For technical and editorial assistance in preparing this report the author especially wishes to thank Mr. Lester Goldner and Mr. Leighton Price of the Division of Air Pollution, Public Health Service. The author also wishes to thank:

Seymour Z. Mann, Director, Public Administration and Metropolitan Affairs Program

William C. Loring, Staff Sociologist, Division of Air Pollution, Public Health Service

James D. Williams, Chief, Survey and Consultation Section, Technical Assistance Branch, Division of Air Pollution, Public Health Service

Jane Schusky
Project Officer
Public Administration and
Metropolitan Affairs Program

INTRODUCTION

In February 1962 St. Louis City and the City of East St. Louis made separate requests to the Public Health Service for technical assistance in combating air pollution. It was apparent that the requests stemmed not from two separate problems but from pollution that pervaded the entire St. Louis metropolitan air basin, and the Public Health Service joined with State and local agencies to organize an Interstate Air Pollution Study.

The study was to have two phases. The first phase was fact finding. Information was to be gathered to establish a base from which an air resource management program could be developed. The second phase aimed at eventual control of air pollution in the St. Louis metropolitan basin, was to develop air quality standards and ordinances, an organization for policing these, and a method of financing the organization.

The first phase was completed in the summer of 1963; the second phase currently is in progress.

One information area explored in the Interstate Study was the public awareness and concern with air pollution in the St. Louis metropolitan area. The Public Health Service contracted jointly with the National Opinion Research Center of the University of Chicago and the Public Administration and Metropolitan Affairs Program of Southern Illinois University to conduct a public opinion survey of this awareness and concern. This report documents the findings of the survey.

Measuring the public awareness and concern with air pollution is necessary to any assessment of the problem if that assessment is to be accurate and if it is to form the basis for a realistic control program. First, many of the effects of air pollution cannot be fully defined by technological instruments. Odors, soiling, decreased visibility, irritation of the eyes and the respiratory tract--definitions of these effects need the input of the human instrument if they are to be complete. Second, effective air pollution control programs fundamentally depend on public support, which, in turn, depends on public understanding. If the public is to be depended on to support particular control programs, deficiencies in the public understanding must be spotted so that they can be corrected by appropriate educational programs.

The purpose, then, of the St. Louis metropolitan area public opinion survey was: (1) to determine the nature and extent of the air pollution problem as perceived by the residents of the area and to determine what effect, if any, this perception had on their behavior; (2) to determine the accuracy and extent of the public knowledge of air pollution and its effects and to discover the sources of this knowledge; and (3) to determine the readiness of the public to accept and support the various elements of a control program, such as interjurisdictional cooperation and the willingness to pay through taxes and increased prices.

CHARACTERISTICS OF THE SURVEY AREA

The St. Louis Metropolitan area, as defined by the U. S. Bureau of the Census comprises the city of St. Louis, the three Missouri counties of St. Louis, St. Charles, and Jefferson, and the two Illinois counties of Madison and St. Clair. The climate of the area is classified Humid Continental: springs and autumns are moderate, winters are brisk, summers are hot; the average annual temperature is 56.7; the average annual precipitation of 38.91 inches is distributed throughout the year.

The St. Louis Metropolitan Area has a virtually limitless water supply in the Mississippi, Missouri, and Meramec Rivers and in wells dispersed throughout the area. Gas and oil pipelines link the area with Louisiana, Oklahoma, and Texas; fuel oil and petroleum are refined in the area; and coal is plentifully available from fields in nearby southern Illinois. Manufacturing and wholesale and retail trade are the primary components of the economy; the area is the nation's second largest rail and trucking center and is the largest inland port on the Mississippi.

In 1960, 1,940,756 persons resided in the area.

St. Louis County embraces more than 90 of the Missouri communities that are suburban to St. Louis City. The city, in 1960, contained approximately 750,000 persons and the county approximately 700,000 persons. While both populations are on the increase, the county population is growing considerably more rapidly than that of the city. Levels of income and education are considerably higher in the county, and living in the county turns more on the family than does living in the city. Far more persons own homes in the county than do in the city. The distribution of non-whites parallels the distribution of income; the proportion of non-whites living in the city virtually doubled between 1950 and 1957.

On the Illinois side of the Mississippi, St. Clair County contains such highly industrial centers as the city of East St. Louis, and contains rich bottom lands that produce truck crops. The southern portion of Madison County, particularly the portion along the river, is highly industrialized with emphasis on the manufacture of steel. Elsewhere this county is for the most part residential. In all, the two Illinois counties in 1960 contained a population of roughly 500,000 persons.

METHODOLOGY

SAMPLE DESIGN

The survey area included St. Louis City and St. Louis County, Missouri, and St. Clair and Madison counties, Illinois, which comprised 10 percent of the land area and 94.2 percent of the population residing in the St. Louis Standard Metropolitan Statistical Area.

The sampling unit was the "household", as defined by the U. S. Bureau of the Census[1]. It was calculated that a total sample of 1000 persons would have a confidence limit of 95 percent and a reliability of $\pm$ 3.5 percent. Since the attitude analysis was to be broken down by sub-area, at least 300 respondents were needed from each of the three major divisions, St. Louis County, St. Louis City, and the Illinois area.

The 1960 Census of Population was used in drawing the sample. All jurisdictions (incorporated and unincorporated) within each major division were listed in order of population size. Sublistings were then made, again by population size, of either city blocks (where census data existed for these) or census tracts. All households in each selected city block and census tract were then listed, and from this final listing the sample households were randomly selected. One adult respondent was then selected from each sample household. Since persons with differing roles in a household look on community problems differently, the sample respondent from each sample household was also selected randomly.

In the interval between the 1960 census and this 1963 survey, demolition operations and other factors, particularly in St. Louis City, caused the attrition of households in certain areas. To fill gaps in the sample caused by these changes, substitute households were added to the sample from the selected blocks. Table 1 shows how the originally selected sample was modified.

Since different skip intervals were used in selecting the samples from the three major divisions figures for these divisions must be weighted if the figures are to be added to obtain a metropolitan area total. Table 2 shows how weights were assigned to the three major divisions; weighting the total sample of 1002 households results in a metropolitan area sample of 1453 households.

Table 3 compares the geographic and racial distribution of persons according to the 1960 census with the distribution of the sample used in this survey. The population in the sample is calculated from the total number of persons reported in each responding household.

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[1] A "household" includes all persons living in a housing unit defined as follows: "A house, an apartment or other group of rooms, or a single room is regarded as a housing unit when it is occupied as separate living quarters, that is, when the occupants do not live and eat with any other persons in the structure and there is either (1) direct access to the outside or through a common hall, or (2) a kitchen or cooking equipment for the exclusive use of the occupants of the unit."

Table 1

Sample Allocation

	St. Louis County	St. Louis City	Illinois	Total
Original frame (1960 census)	395	420	435	1250
Attrition due to demolition	0	-62	-4	-66
Attrition due to vacancies, commercial addresses, etc.	13	-20	-24	-57
Initial net frame	382	338	407	1127
Augmentation of city (within listed segments)	0	+60	0	60
Total net frame	382	398	407	1187
Completed interviews:	327	320	355	1002
Completion rate (completed interviews x 100 ÷ total net frame)	85.6%	80.4%	87.2%	84.4%

Table 2

Weighting of Sub-Area Samples

	St. Louis County	St. Louis City	Illinois	Total
1960 Census				
No. of Households	198,483	248,651	144,593	591,727
Percent of Total	33.54	42.02	24.44	100.00
Air Pollution Completed Interviews				
No. of Households	327	320	355	1,002
Percent of Total	32.63	31.94	35.43	100.00
Raw Weight (Census Percent ÷ Sample Percent)	1.03	1.32	0.69	1.00
Revised Weight (Illinois Raw Weight = 1.00)	1.49	1.91	1.00	1.45
Weighted No. of Households	487	611	355	1453

Table 3

Geographic and Racial Distribution of Population

	U.S. Bureau of Census (1960)	Weighted Household Sample
St. Louis County		
White	35.3%	37.2%
Non-White	1.0	0.8
St. Louis City		
White	27.5	23.0
Non-White	11.1	14.9
Illinois		
White	22.0	21.4
Non-White	3.1	2.7
Total Percent	100.0	100.0
Number of Persons	1,940,756	4790

As can be seen from table 3 there are no drastic over- or under-representations for racial groups in any sub-area. The sample distribution shows a slightly higher proportion of non-whites in St. Louis City than existed in the general population in 1960. Since the St. Louis area has experienced recent non-white in-migration, the sample may be more accurate than the three year old census.

There is considerable interest in the problems of property maintenance created by air pollution and in the extent to which the owner-renter status may affect attitudes toward air pollution. Table 4 shows that the owner-renter distribution in the sample corresponds almost exactly to that indicated by the 1960 Census of Housing.

Table 4

Owner Occupied Households by Sub-Area and Race (Percent)

	White		Non-White		Total	
	Census	Sample	Census	Sample	Census	Sample
St. Louis County	82.4	80.9	62.1	59.7	81.9	80.2
St. Louis City	41.8	46.2	26.8	28.0	38.2	39.8
Illinois	74.8	75.5	48.7	50.0	71.9	72.6
Total Area	65.5	68.1	33.4	33.2	61.1	61.7

On the basis of the distributions shown in table 4, it might be expected that persons in St. Louis City would have fewer concerns with property upkeep, while those in St. Louis County and in Illinois would consider air pollution more serious because of its role in soiling or damaging houses or in otherwise depreciating property values.

Table 5 compares the racial distributions of income level in the sample with the census.

Table 5

Median Family Income By Sub-Area and Race

	White		Non-White		Total	
	Census	Sample	Census	Sample	Census	Sample
St. Louis County	$7,602	$7,663	$3,578	$3,333	$7,527	$7,582
St. Louis City	5,833	5,628	3,718	3,533	5,355	4,865
Illinois	6,363	5,680	3,256	2,667	6,081	5,376
Total Area	6,682	6,540	3,620	3,379	6,300	5,906

Sample median incomes are lower than census median incomes for both St. Louis City and Illinois. In Illinois this differential is particularly sharp. There is evidence[2] that for certain municipalities increasing unemployment has lessened income since the 1960 census. It is possible, however, that this sample does somewhat overrepresent the less financially able, but the extent of this overrepresentation is not great when compared with the differences in income between racial groups. The measure, delta (Δ), indicates the percent of persons whose position would have to be relocated to make one array correspond to another, and is useful in examining the magnitude of any possible sample bias. For the total survey area the following Δ 's are derived from the distributions of family income:

Census:	White versus Non-White	Δ = 42.8%
Sample:	White versus Non-White	Δ = 45.1%
Census versus Sample Total:		Δ = 8.3%

It is evident that sample bias is far less significant than is the true difference in income levels of whites and non-whites.

As with income level the educational attainment of the white is generally higher in all areas--table 6.

Table 6

Educational Attainment (In Years) of Sample Respondents By Race and Sub-Area

	Elementary			High Schl.		College		Weighted Base
	0 - 4	5 - 6	7 - 8	9 - 11	12	1 - 3	4 & +	
St. Louis Co.								
White	1.6	4.2	13.1	19.5	32.3	15.3	14.0	466
Non-White	37.5	0.0	12.5	25.0	25.0	0.0	0.0	12
St. Louis City								
White	4.3	4.3	32.5	13.5	25.6	10.1	9.7	395
Non-White	13.1	12.1	24.3	27.1	10.3	8.4	4.7	204
Illinois								
White	2.6	4.2	24.4	19.6	32.5	9.3	7.4	311
Non-White	20.0	15.0	20.0	20.0	12.5	5.0	7.5	40

[2] Schusky, Jane; Employment and Unemployment in East St. Louis, Illinois (Edwardsville, Illinois: Public Administration and Metropolitan Affairs Program, January 1964)

The source of the differences shown in tables 4, 5, and 6 is probably not racial; it is generally recognized that income level, educational attainment, and other correlates of race are usually more significant in determining behavior.

The survey developed one other set of pertinent background data. The respondents were asked to tell how long they had lived in the St. Louis area, in their present county, and in their local neighborhood. Awareness of air pollution and adjustments to it may be associated with the length of exposure. Attitudes toward community problems may be based on the extent of knowledge and attitudes about governmental efficiency and cooperation which, in turn, may be affected by the length of residence.

Table 7

Length of Residence of Respondents in Areas

		Present Area of Residence			
Length of Residence in:	Total	St. Louis County	St. Louis City	Madison County	St. Clair County
St. Louis Metropolitan Area					
Median (years)	32.6	34.6	32.0	29.7	32.5
Under 3 years (%)	4.2	5.2	2.5	5.7	4.1
Sub-Area					
Median (years)	22.2	12.6	28.6	24.8	25.7
Under 3 years (%)	9.2	13.6	5.4	9.5	8.2
Local Neighborhood					
Median (years)	7.5	7.1	8.0	5.8	8.7
Under 3 years (%)	24.3	27.2	28.2	28.8	24.7

The period of three years was arbitrarily selected to separate those persons so new in the community as to be underexposed to community problems and action programs. It is interesting that at the neighborhood level all areas appeared to contain about equal proportions of relative newcomers. An indication of population growth in St. Louis County is the low median for county residence there. It can certainly be stated, however, that all areas contain sizeable proportions of respondents qualified, at least by length of exposure, to express opinions and attitudes about air pollution and other community problems.

QUESTIONNAIRE CONSTRUCTION

The sequence of questions in the household interview was designed to first obtain the respondent's overall attitude toward his neighborhood and community without calling any particular attention to air pollution. The respondents were then asked to indicate the relative seriousness of different community problems including air pollution. Only after examination of general community attitudes did the questionnaire focus on air pollution itself. This design prevented the respondent's being sensitized to air pollution prior to his fixing the problem in perspective. A copy of the questionnaire is included in the Appendix A to this report.

PRETESTING AND INTERVIEWER TRAINING

Pretesting of the questionnaire was conducted in Chicago, Detroit, and St. Louis, and the questionnaire was refined to reflect the results of the pretesting. Interviewers were given a two day training course in the administration of the questionnaire.

DISCUSSION OF SURVEY RESULTS

ORDER OF QUESTIONNAIRE AND OF THIS REPORT

Since the purpose of this survey was to discover the public's attitudes towards air pollution and to measure the relative strength of these attitudes, the survey questionnaire was designed to present air pollution first in the milieu of other environmental and social problems and then to present the components of the problem. In this way the measured general attitudes towards air pollution could not be influenced by the detailed probing of the specifics of the problem.

Although the questionnaire was designed as much as possible to prevent one question from influencing the response to following questions, this report, in analyzing the data obtained, organizes the data by meaning. Consequently, the report often violates the question order of the survey questionnaire. To see the order of questions as presented by the interviewers, the reader is referred to a copy of the questionnaire in Appendix A to this report. Where questions are quoted in the text of the report the questionnaire item numbers are given in parentheses.

GENERAL ATTITUDES OF THE SAMPLE POPULATION

To determine what effect, if any, air pollution had on the sample population's general opinion of their residence area, respondents were asked to rate their area as a place to live, to describe what they liked and disliked about it, to rate the quality of their air and to state whether they thought it was polluted. Air pollution was introduced along with several other possible problems and the respondents asked to rate the seriousness of each and the effectiveness of their officials in dealing with these problems. The respondents were also asked whether they had ever felt like complaining to some authority about the problems presented.

Each respondent was asked (Item 2): What are some of the things you like about living in (city) (township)? To obtain a reasonably complete picture of opinion, the interviewer encouraged the respondent to answer fully. Table 8 indicates the pattern of responses.

Table 8 indicates that, for the most part, St. Louis County and Illinois residents cite the physical aspects of their city or township (spaciousness, privacy, attractiveness, etc.) and the characteristics of people as the principal things they like about their areas. Access to schools, churches, recreation, and transportation is of greatest positive significance to St. Louis City residents. Each sub-area seems to be characterized by particular attributes. St. Louis County residents, for example, list access to shopping facilities considerably more often than do the other sub-area residents.

Although clean air is not a strongly positive characteristic to any of the residents (only 3.5 percent in the total area cite it as a thing they like,) it is interesting to note that the suburban area residents mention it considerably more frequently than do St. Louis City residents.

Is air more important as a negative aspect? Table 9 lists responses to the question (Item 3): What are some things you don't like about living in (city) (township)?

It should be recognized that it is possible for one respondent to both like and dislike a given coded characteristic. For example, one might like the privacy of living in an area in Illinois while despairing of the unattractiveness of nearby factories -- both are coded under "physical aspects."

Table 8

Things Liked in City or Township by Sub-Area*

Things Liked	Total Area %	St. Louis County Rank	St. Louis County %	St. Louis City Rank	St. Louis City %	Illinois Rank	Illinois %
Physical Aspects	44.1	1	62.8	5	21.7	1	55.4
Access to Schools, Church and Recreation	43.8	3	42.2	1	50.8	3	34.2
Characteristics of People	40.2	2	47.8	2	28.8	2	49.1
Access to Shopping Facilities	22.0	4	30.0	7	18.1	5	17.3
General Convenience and Accessibility	16.0	6	17.2	8	14.7	6	16.7
Public Service and Public Administration	15.8	5	22.8	9	11.7	7	12.8
Access to Transportation and Transportation Routes	13.9	8	14.7	6	19.4	11	3.6
Always Lived Here or Family Lives Here	13.9	10	4.1	4	23.4	8	11.3
Employment Availability-Cost of Living	12.4	7	15.0	3	27.8	4	24.7
Clean Air	3.5	9	5.3	11	0.3	9	6.3
Other and General Liking	2.8	11	2.2	10	2.3	10	4.8
Weighted Base (100.0%)	1384		477		571		336
Average Number of Responses per Respondent			2.6		2.2		2.4

*The percentages in table 8 do not total 100.00 because many respondents gave more than one answer to the question.

Table 9

Things Disliked in City or Township by Sub-Area*

Things Disliked	Total Area %	St. Louis County		St. Louis City		Illinois	
		Rank	%	Rank	%	Rank	%
Physical Aspects	35.0	3	27.8	1	[37.2]	1	[40.8]
Public Services	27.1	2	[36.1]	5	13.7	2	[36.9]
General Accessibility	25.0	1	[39.8]	4	14.1	3	23.4
Characteristics of People	24.3	5	17.0	2	[36.3]	5	14.5
Taxes	14.8	4	20.7	8	10.3	6	14.5
Public Administration and Government	11.9	7	11.6	6	11.5	7	13.1
Employment and Cost of Living (except taxes)	10.8	9	4.1	3	17.5	8	8.9
Traffic and Parking	9.9	6	12.4	9	10.3	9	6.0
Air Pollution	8.5	8	5.8	10	6.4	4	15.2
Vice	6.1	10	2.1	7	11.5	10	2.5
Other and General Dislike	1.8	11	0.8	11	3.4	11	0.7
Weighted Base (100.0%)	1088		359		447		282
Average Number of Responses per Respondent			1.8		1.7		1.8

*The percentages in table 9 do not total 100.0 because many respondents gave more than one answer.

City residents apparently are particularly concerned about physical aspects and about the characteristics of people. Concern with the latter category is expressed in responses specifying unfriendliness of people, racial antagonisms, and the presence of a "poor class." City residents also view vice, employment, and living costs as more serious problems. Taxation is a significant problem in St. Louis County, as is public services and accessibility to facilities and services. Residents of Illinois cite physical aspects as negative.

Of the eleven categories of things disliked, air pollution ranks fourth in the two Illinois counties. Further, a comparison of tables 8 and 9 indicates that in St. Louis City the quality of the air is mentioned as a negative characteristic 20 times more frequently than as a positive characteristic. In Illinois air quality is cited almost three times more frequently as a negative factor than as a positive factor. The responses concerning likes and dislikes also indicate somewhat the extent to which people are sensitive to air quality as a factor in their evaluation of their city or township. In St. Louis County 5.3 percent mentioned "clean air" as something they liked about the County, and 5.8 percent mentioned "air pollution" as something they disliked about the County. In Illinois, 6.3 percent men-

tioned clean air as a "like" and 15.2 percent mention air pollution as a "dislike." Further study is needed to determine the cause of the relatively low sensitivity to air pollution in St. Louis City: 6.3 percent. One possible explanation is that persons who have such sensitivity select residences in those suburban areas where air pollution is less of a problem. Another possible explanation, consistent with observations by Van Arsdol[3], is that non-whites, almost 40 percent of the Sample in St. Louis City, are so preoccupied with other severe social problems such as unemployment, low income, poor housing and discrimination that air pollution is obscured as a significant environment factor.

This latter explanation is in part substantiated by a comparison of two other sets of data. Table 10 displays the responses by race to the question (Item 1): In general, how would you rate (city) (township) as a place to live? Table II displays the responses by race to the question (Item 27): How would you rate the quality of the air in this neighborhood right around here where you live?

Table 10

Rating of City or Township as a Place to Live by Race

Rating	White	Non-White
Excellent	36.4	12.1
Good	39 .4	34.1
Fair	19.1	46.4
Poor	3.7	7.0
Very Poor	1.4	0.4
Weighted Base	976	259

It is apparent from table 10 that non-whites are considerably less satisfied with their city or township as a place to live. Also, it is a fact that non-white residence areas offer fewer positive physical benefits than do white residence areas. Since segregation forces prevent even the financially capable non-whites from moving to more desirable locations, the non-white relative dissatisfaction shown in table 10 probably expresses, for one thing, the frustration of the financially capable non-white who desires to move.

The significance of air pollution in the relative dissatisfaction of the non-whites apparently is minor. As shown in table 11, although a smaller percentage of non-whites are "strongly satisfied" with the air in their neighborhoods, the difference is more than made up at the "satisfied" level.

Although air pollution as a problem for the non-whites may be somewhat obscured by more pressing social problems the overall survey results do indicate that dissatisfaction with the neighborhood is related to perception of air pollution. Residents were asked (Item 32): As you see it, is there any air pollution here in this neighborhood? The response to this question is compared in table 12 with the response to the question (I (Item 1) on rating of city or township as a place to live.

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[3] "It may be that while non-whites tend to be concentrated in smog areas, the intrusion of social hazards obscures the perception of environmental hazards." Van Arsdol, Maurice D., Jr. et al.; The Social Nature of Environmental Hazards in Los Angeles, University of Southern California, 1963, p.111.

Table 11

Rating of Quality of Air in Neighborhood by Race

	White		Non-White	
	%	Cumulative	%	Cumulative
Strongly Satisfied	24.4	24.4	4.9	4.9
Satisfied	47.0	71.4	62.2	67.1
Mildly Satisfied	14.0	85.4	22.3	89.4
Mildly Dissatisfied	6.5	91.9	3.4	92.8
Dissatisfied	4.1	96.0	4.9	97.7
Strongly Dissatisfied	4.0	100.0	2.3	100.0
Weighted Base	1168		256	

Table 12

Rating of City or Township by Presence of Air Pollution in Neighborhood

Is There Air Pollution in Neighbor-hood?	Rating of City or Township					
	Excellent	Good	Fair	Poor	Very Poor	Total
Yes	25.9	38.3	51 0	56.6	[67.1]	38.7
No	[74.1]	61.7	49.0	43.4	32.9	61.3
Weighted Base	390	662	311	55	15	1433

It is evident from table 12 that persons who recognize the presence of air pollution in their neighborhood also tend to be dissatisfied with their community. However, the extent to which air pollution may cause dissatisfaction cannot be concluded from the table since in neighborhoods with air pollution there may very well be other problems that contribute to dissatisfaction.

To discover the significance of air pollution relative to other problems the residents were asked early in the interview a series of questions on six specific problems, air pollution being one of the six. One question was put to the respondents in this way (Item 7): I will mention a few problems which different communities are facing. How would you rate each of these for (city) (township)? First, recreation areas and programs--would you rate them very serious, somewhat serious, or not serious? In succeeding parts of the question the respondent was asked to rate unemployment, air pollution, race problems, garbage and refuse collection and disposal, juvenile delinquency, and any other problem you feel is important here in (city) (township).

A similar question asked the respondents to rate these problems on a neighborhood basis (Item 8): ... about problems here in your neighborhood--right where you live. First recreation areas and programs--would you rate them very serious, somewhat serious, or not serious? Table 13 compares the responses by sub-areas to both these questions.

A comparison of the city or township data with the neighborhood data in table 13 reveals that all problems are considered less serious in the neighborhood than in the city or township. This can be explained by the fact that most neighborhoods are relatively homogeneous in racial, economic, and social attributes. That race problems are significant in the city but not in the neighborhood perhaps indicates that segregated housing prevents the problem from evidencing itself at the neighborhood level. Similarly the employed may see "unemployment" as a citywide problem but not as a neighborhood problem.

Table 13

How Would You Rate Problems Here in Neighborhood and in City/Township

	Total		St. Louis County		St. Louis City		Madison County		St. Clair County	
Problem	Neighborhood	City	Neighborhood	City	Neighborhood	City	Neighborhood	City	Neighborhood	City
Lack of Recreation Areas and Programs										
Very Serious	14.9	16.7	11.0	13.4	16.5	18.5	16.8	10.3	18.9	25.1
Somewhat Serious	19.3	24.5	18.9	21.4	19.4	26.3	20.1	29.0	19.4	23.4
Not Serious	65.7	58.8	70.1	65.2	64.1	55.2	63.1	60.7	61.7	51.5
Unemployment										
Very Serious	12.7	25.2	2.6	5.3	20.7	40.0	8.2	19.4	17.6	27.9
Somewhat Serious	12.7	23.3	3.4	8.9	16.7	28.7	14.9	32.6	21.0	30.8
Not Serious	74.5	51.5	94.0	85.8	62.6	31.3	76.9	48.0	61.4	41.3
Air Pollution										
Very Serious	10.4	14.0	4.9	6.1	11.7	17.3	15.6	18.8	16.3	21.0
Somewhat Serious	16.9	21.7	9.4	10.6	20.3	28.2	20.1	28.2	23.6	26.7
Not Serious	72.6	64.3	85.7	83.3	68.0	54.5	64.3	53.0	60.1	52.3
Race Problems										
Very Serious	2.6	13.9	0.3	2.5	5.0	26.5	0.6	3.1	3.2	13.9
Somewhat Serious	4.7	18.3	1.9	8.1	5.9	29.6	3.8	13.2	9.0	14.4
Not Serious	92.7	67.8	97.8	89.4	89.1	43.9	95.6	83.7	87.8	71.7
Garbage and Refuse Disposal										
Very Serious	4.3	5.3	0.9	1.3	5.9	6.8	5.7	7.0	6.9	9.2
Somewhat Serious	9.1	11.1	3.2	3.8	12.4	16.5	10.8	10.1	12.2	13.6
Not Serious	86.7	83.6	95.9	94.9	81.7	76.7	83.5	82.9	80.9	77.2
Juvenile Delinq										
Very Serious	10.2	22.2	2.9	7.1	20.5	41.6	3.3	6.1	3.2	12.4
Somewhat Serious	14.4	24.7	9.7	15.2	16.7	30.2	13.1	31.8	19.5	25.4
Not Serious	75.5	53.1	87.4	77.7	62.8	28.2	83.6	62.1	77.3	62.2

Although air pollution conforms generally to this pattern there is considerably less attitudinal difference between the city and the neighborhood toward air pollution. If air pollution is perceived at all it registers as a problem in the city and in the neighborhood. This indicates that if a campaign were launched for public support of air pollution control, definitions of problems at the city level would carry over into the immediate residence area.

Discussing the ratings of problems within each sub-area, it is apparent from Table 13 that St. Louis County residents do not find any of these problems "very serious" either in the city or township or in the neighborhood. They are most concerned about lack of recreation areas and programs. Air pollution ranks third in seriousness as a city or township problem and second as a neighborhood problem.

In St. Louis City one finds, that in the overall city and in the neighborhood, unemployment and juvenile delinquency are cited most frequently as "very serious." Air pollution ranks as the fourth most serious problem.

Madison County residents at the city or township level are concerned primarily with unemployment and air pollution with about 20 percent considering each of these two problems to be "very serious." At the neighborhood level these residents feel that air pollution and lack of recreation areas and programs are the major problems.

At the city or township level St. Clair County concern is most frequently shown for unemployment, lack of recreation facilities, and air pollution. More than 20 percent feel air pollution to be "very serious." At the neighborhood level the greatest concern is air pollution, with 40 percent of the residents citing this problem as at least "somewhat serious." This is in sharp distinction to the primary concern over unemployment in the city or township.

In all sub-areas except St. Louis County almost half the respondents felt that air pollution was either "very serious" or "somewhat serious." Listing the sub-areas in decreasing concern: St. Clair County is most concerned, Madison County is second, St. Louis City third, and St. Louis County is fourth, or least concerned.

Since many respondents mentioned more than one problem as being "very serious," or indicated that no problem was "very serious" but that more than one problem was "somewhat serious," the results were recombined in order to assess the "most serious" problem by city or township and by neighborhood for each sub-area. The sample individuals who listed more than one problem as "very serious" or "somewhat serious" in their city or township were asked (Item 7): Of the following problems, which would you rate as the most serious problem in (city) (township)? Similarly, respondents who had rated two or more problems as "very serious" or "somewhat serious" in their neighborhood were asked (Item 8): Of the following problems, which would you rate as the most serious problem in your neighborhood? In response to both questions respondents were permitted to include problems of their own choosing, but no single problem was listed often enough to warrant its being included here. The totality of responses, single choices and the most serious of multiple concerns, are included in table 14.

In St. Louis County again the most serious problem is lack of recreation areas and programs, both at the city or township and neighborhood levels. Air pollution ranks second from the neighborhood view and third from the city or township view. In St. Louis City unemployment and juvenile delinquency are perceived as the most serious problems; air pollution ranks third at the neighborhood level and fourth at the city or township level. When many serious problems are encountered, air pollution drops in rank below that of other social and economic issues. As a city or township problem air pollution is most serious to Madison County residents. From the neighborhood view it ranks second to lack of recreation areas and programs. In St. Clair County unemployment is most serious; lack of recreation areas and programs is second; air pollution ranks third.

In considering the responses to these two questions it is significant to note that approximately 15 percent of the total metropolitan area population considered air pollution to be the most serious problem.

When examining the perceived relative seriousness of various community problems it is interesting to see just how significant such problems are in the ranking of a city or township as a place to live. For this reason table 15 is presented. It should be kept in

Table 14

Which Would You Rate as the Most Serious Problem in Neighborhood and in City/Township

	Total		St. Louis County		St. Louis City		Madison County		St. Clair County	
	Neighborhood	City	Neighborhood	City	Neighborhood	City	Neighborhood	City	Neighborhood	City
Lack of Recreation Areas and Programs	22.1	15.5	38.1	34.5	12.8	5.0	27.5	10.2	19.1	18.9
Unemployment	17.0	23.2	4.2	8.0	22.1	31.6	11.6	18.2	28.3	28.4
Air Pollution	15.7	10.3	14.4	10.4	13.6	5.3	23.3	25.4	17.6	13.8
Race Problems	3.2	.4	1.8	6.5	3.8	16.1	2.5	5.8	4.2	9.4
Garbage and Refuse Disposal	5.2	2.7	2.4	2.0	5.6	1.8	9.2	7.2	5.6	3.2
Juvenile Delinq.	15.8	21.7	11.4	15.8	23.3	30.1	6.7	15.2	7.0	11.3
Other (mentioned by respondent)	21.0	15.2	27.7	22.8	18.8	10.1	19.2	18.0	18.2	15.0
Weighted Base	958	1131	247	301	449	533	120	138	142	159

Table 15

Most Serious Problem in City or Township By Rating As A Place To Live

Most Serious Problem	Rating of City or Township				
	Excellent	Good	Fair	Poor	Very Poor
Air Pollution	15.1	9.1	6.8	16.2	23.9
Unemployment	18.5	20.1	32.4	31.8	15.8
Race Problems	12.5	11.2	10.2	7.2	5.4
Lack of Recreation Areas and Programs	18.9	16.3	13.1	4.6	8.2
Garbage and Refuse Collection and Disposal	3.5	2.8	2.1	1.9	-
Juvenile Delinquency	18.9	22.3	25.1	30.9	10.3
Other (Mentioned by Respondent)	12.6	18.2	10.3	7.4	36.4
Weighted Base	251	529	282	54	18

mind that the four sub-areas rank their cities and townships differently, and that these differences are reflected in table 15.

Table 15 shows a fairly even distribution of "most serious" problems among respondents who rate their city or township as excellent, except that few persons feel

garbage collection and disposal is important. As one goes down the city or township rating scale, however, certain problems assert themselves. Unemployment and juvenile delinquency concerns become a more significant proportion of the total responses from the "good" through the "poor" rating levels. This correlates with the fact that approximately one third of all the respondents giving these ratings are residents of St. Louis City, whose concerns about these matters have already been shown. (See tables 13 and 14.) To those who rate their community as "very poor" air pollution is most frequently cited as the "most serious problem" (23.9 percent). No single problem appears to determine the overall rating of the city.

Another factor which may affect a respondent's rating of his city is his perception of the effectiveness of local officials. Respondents were asked (Item 24): How good a job do you think your officials in (city) (township) are doing in dealing with problems like these? Do you think they're very effective, somewhat effective, somewhat ineffective, or very ineffective? Table 16 compares the ratings of officials to ratings of the city or township.

Table 16

Effectiveness of Officials in Dealing With Problems by Rating of City or Township

Effectiveness of Officials in Dealing With Problems Listed	Rating of City or Township				
	Excellent	Good	Fair	Poor	Very Poor
Very Effective	42.1	25.2	9.5	7.5	-
Somewhat Effective	47.3	58.8	59.0	45.5	15.3
Somewhat Ineffective	6.4	10.9	23.8	22.2	35.7
Very Ineffective	4.2	5.1	7.7	24.8	49.0
Weighted Base	376	631	304	53	10

It is quite evident from table 16 that the rating of the city or township is highly related to the respondent's opinion about the abilities of officials to deal with local problems. As the rating of the city declines, so does the proportion feeling that such leadership is effective.

The area distribution of attitudes toward public officials is shown in table 17. St. Louis County residents indicate the greatest satisfaction with the problem solving ability of their officials while St. Clair County at the other extreme, shows the least approval of their local authorities. These results are positively related to the presence or absence of serious city or township problems.

After the series of questions as to the seriousness of the listed problems each respondent was asked (Item 10): Have you ever felt like complaining to some authority or agency about the kinds of problems we've been discussing? This was asked for each problem. Complaint behavior is indicated in table 18.

As shown in table 18 few persons complained about any of the listed problems. The only significant complaint behavior is concerned with air pollution in Illinois. Here, 24 percent "wished to complain," and one fourth of these did complain. Consistent with their general lack of concern, as indicated by previously documented responses, St. Louis County residents were least inclined to complain.

Table 17

Effectiveness of Officials in Dealing With Problems By Sub-Area

Effectiveness of Officials in Dealing With Problems Listed	Total	St. Louis County	St. Louis City	Madison County	St. Clair County
Very Effective	25.4	44.4	11.8	33.8	13.1
Somewhat Effective	54.9	42.2	66.6	46.7	56.8
Somewhat Ineffective	13.1	9.9	14.1	14.3	17.0
Very Ineffective	6.6	3.5	7.5	5.2	13.1
Weighted Base	1380	466	584	154	176

Table 18

Complaint Attitude and Behavior by Sub-Area

Problem	Total	St. Louis County	St. Louis City	Illinois Counties
Lack of Recreation Areas and Programs				
Did Not Wish To Complain	84.8	86.7	84.0	83.6
Wished to Complain but did not	10.9	9.3	11.6	11.9
Wished to Complain and did	4.2	4.0	4.4	4.5
Unemployment				
Did not Wish to Complain	90.5	96.6	87.1	87.8
Wished to Complain bud did not	6.7	2.8	8.5	8.8
Wished to Complain and did	2.9	0.6	4.4	3.4
Air Pollution				
Did not Wish to Complain	85.6	89.2	88.3	75.5
Wished to Complain but did not	11.1	8.3	9.5	17.9
Wished to Complain and did	3.3	2.5	2.2	6.6
Race Problems				
Did not Wish to Complain	90.0	94.8	87.5	87.5
Wished to Complain but did not	7.9	4.0	10.3	9.1
Wished to Complain and did	2.1	1.2	2.2	3.4
Garbage and Refuse Collection and Disposal				
Did not Wish to Complain	90.5	93.2	89.0	89.6
Wished to Complain but did not	5.6	4.0	6.6	6.2
Wished to Complain and did	3.9	2.8	4.4	4.2
Juvenile Delinquency				
Did not Wish to Complain	86.0	88.0	82.7	89.0
Wished to Complain but did not	7.1	5.8	9.4	4.8
Wished to Complain and did	6.9	6.2	7.9	6.2

Public officials frequently attempt to gage public feeling on an issue by the number of complaints received. Apparently, the number of complaints received is merely the "top of the iceberg" of public feeling. Table 18 shows that, in each of the sub-areas, for every person who complains there are three or four persons who feel like complaining but do not.

Further insight into complaint behavior is given by table 19, which displays the complaint attitudes of those who considered one of the problems listed as "most serious."

Table 19

Complaint Attitudes of Those Who Consider a Particular Problem "Most Serious"

Most Serious Problem	Complaint Attitude About Most Serious Problem			
	St. Louis County	St. Louis City	Madison County	St. Clair County
Recreation				
Did not wish to Complain	66.7	80.0	81.3	51.9
Wished to Complain But Did Not	23.8	13.3	15.6	33.3
Wished to Complain and Did	9.5	6.7	3.1	14.8
Unemployment				
Did not Wish to Complain	100.0	67.3	76.9	65.0
Wished to Complain But Did Not	0.0	23.1	23.1	27.5
Wished to Complain and Did	0.0	9.6	0.0	7.5
Air Pollution				
Did not wish to Complain	54.1	54.8	35.7	36.4
Wished to Complain But Did Not	29.2	45.2	46.4	50.0
Wished to Complain and Did	16.7	0.0	17.9	13.6
Race Problems				
Did Not Wish to Complain	100.0	25.0	33.3	66.7
Wished to Complain But Did Not	0.0	75.0	66.7	33.3
Wished to Complain and Did	0.0	0.0	0.0	0.0
Garbage and Refuse Collection and Disposal				
Did not wish to Complain	0.0	63.6	54.5	50.0
Wished to Complain But Did Not	75.0	18.2	36.4	12.5
Wished to Complain and Did	25.0	18.2	9.1	37.5
Juvenile Delinquency				
Did Not Wish to Complain	36.8	53.7	37.5	70.0
Wished to Complain But Did Not	42.1	24.1	25.0	20.0
Wished to Complain and Did	21.1	22.2	37.5	10.0

Several patterns seem to emerge from the data in table 19. Respondents wish to complain about certain problems, like race and unemployment, but perhaps because they feel complaining is futile they do not express their dissatisfaction. Respondents wishing to complain about air pollution perhaps do not because they do not know to whom to complain. On the other hand, respondents wishing to complain about a problem such as juvenile delinquency know whom to complain to (the police, perhaps) and feel that their complaint will have effect. Finally, those who perceive air pollution as the "most serious" problem are most likely to wish to complain. Persons who feel other situations

are more troublesome are not so likely to have wanted to register a complaint about these particular problems, or are less "problem specific"; that is, they are either general complainers who object to many problems, or they complain little at all.

Other relationships, not published in tabular form in this report, emerge from responses to the question on complaint attitudes. Complaining appears to bear no relationship to the sex of the respondent, or to political preference. Educational attainment, however, shows a rather interesting relationship. Persons with either very low or very high educations do not complain as often as those with moderate schooling. This might be accounted for as follows: persons with low education, while living in areas having the problems, are afraid to complain, do not know to whom they should complain, or even that such a person exists; persons with high education live in areas not having the problems, and therefore have no need to complain.

The relationship between complaint wish and occurrence, and the effectiveness of local leadership is about as expected. As leadership capacity falls, greater proportions indicate that they have or would like to have complained about various issues.

Differences in the rating of a city as a place to live are not related to complaint wish. This may be due to the educational relationship previously mentioned. The low education group, not complainers, live in areas which are given a poor rating; the highly educated live in "good" areas, and are not motivated to complain. The two groups neutralize each other, the "poor" area ratings balancing the "good" area ratings.

SPECIFIC ATTITUDES ON AIR POLLUTION

To get at the specific attitudes of the sample population on air pollution the respondents were asked whether they were affected by air pollution and, if so, in what circumstances, and they were questioned about their health and whether they thought air pollution affected health. They were asked whether air pollution occurred in their neighborhood and, if so, during what seasons. They were also asked to define what air pollution meant to them and to list its causes. In this last set of questions they were asked open-ended and restricted-answer questions; for example, they were first asked to volunteer definitions of air pollution and then to select definitions from a list presented to them.

The response to the question (Item 27) on rating the quality of the air, previously broken down by race in table 11, is displayed by sub-area in table 20. The table substantiates the pattern indicated in tables 13 and 14: in the Illinois area a significant number express some degree of dissatisfaction with the quality of the air -- 22.8 percent in Madison County and 19.1 percent in St. Clair; less dissatisfaction is felt in St. Louis City (14.2 percent) while St. Louis County shows the least dissatisfaction (8.9 percent).

Table 20

Satisfaction With Quality of Air by Sub-Area

Satisfaction Level	St. Louis County	St. Louis City	Madison County	St. Clair County
Strongly Satisfied	31.9	13.2	25.9	13.9
Satisfied	48.5	52.1	41.2	41.0
Mildly Satisfied	10.7	20.5	10.1	16.0
Mildly Dissatisfied	3.7	6.6	10.1	7.2
Dissatisfied	3.1	3.8	7.0	6.2
Strongly Dissatisfied	2.1	3.8	5.7	5.7

This general pattern on attitude and concern with air pollution is shown in the response to another question (Item 31): Which of these statements (see table 21) comes closest to describing how you are affected by air pollution?

Table 21 shows that almost half (46.1 percent) the residents of the metropolitan area are bothered at least "somewhat" by air pollution and that 8.7 percent are bothered "quite a lot" by it. Although in no area does less than one third the population express some bother about air pollution, the most acute problem appears to be found in the Illinois area, particularly in St. Clair County where almost two thirds say they are bothered by air pollution.

A comparison of table 21 with table 9 (things disliked) indicates that many more people are bothered by air pollution than list air pollution as one of the things they dislike about their community. A possible explanation is that, to people who are only bothered "somewhat" by air pollution, the problem is not severe enough in relation to other problems to be considered as a thing they dislike about their community. In this connection, it should be noted that the percentage who are bothered "quite a lot" by air pollution is about the same as the percentage who volunteered air pollution as a thing they dislike about their community.

Table 21

How Affected by Air Pollution

How affected by Air Pollution	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
"I haven't been bothered by air pollution at all."	53.9	64.1	51.9	50.6	37.1
"I've been bothered by air pollution somewhat."	37.4	30.4	39.2	38.1	48.5
"I have been bothered quite a lot by it."	8.7	5.5	8.9	11.3	14.4
Weighted Base	1444	486	604	160	194

Further insight into the "bother" of air pollution is gained from the response to a question on how air pollution affects certain aspects of living. Respondents were asked (Item 40): Does air pollution affect any of the following? (The aspects of personal circumstances and behavior which respondents were requested to consider and their responses are shown in table 22.)

Table 22 shows that air pollution affects the personal aspects of living in the Illinois counties to a greater extent than it does in the Missouri sub-areas. This conforms to previously cited evidence which indicates a greater concern with air pollution in the Illinois counties. It is noteworthy, however, that St. Louis County residents, least concerned with air pollution, frequently (more than 20 percent) said that air pollution affected their choice of jobs and their household maintenance activities.

The Louis City residents are affected most in the care and upkeep of their houses (31.1 percent) and in the frequency of cleaning curtains and drapes (32.3 percent.) St. Louis City residents feel that their choice of jobs is least affected by air pollution. Perhaps they are saying that places of work within the city are all so contaminated that little choice exists or, as might well be the case with the low income non-whites, perhaps their need for any job is so great that air pollution could hardly affect their choice.

In the Illinois counties air pollution affects the lives of many people in all of the aspects considered. Problems of personal, household, and automobile cleanliness are significant to more than 30 percent of the respondents in Madison and St. Clair Counties,

and large proportions (about 25 percent) feel that air pollution affected the work place of the household head, the value of their houses (about 25.0 percent), and the reputation of the area (over 30 percent).

Table 22

Does Air Pollution Affect Personal Circumstances

"Is Affected" Response	Total	St. Louis County	St. Louis City	Madison County	St. Clair County
How often you clean curtains and drapes	29.6	22.2	32.3	37.1	33.9
Care and upkeep of house	28.9	20.2	31.1	36.1	37.9
How often you wash your car	23.0	19.1	20.2	33.5	32.5
Reputation of area where you live	22.9	19.7	20.1	34.8	30.3
Personal Cleanliness	20.9	14.8	24.6	28.9	18.0
Price your home would sell or rent for	18.3	16.7	15.6	25.0	25.7
Where household head chooses to work	17.0	20.1	10.4	25.2	23.0
Where you shop	11.4	9.5	6.9	19.4	23.6
Weighted Base (100%)	1452	487	611	160	194

Although the effects of air pollution on cleanliness are most frequently mentioned in table 22, it is revealing that 15 percent to 25 percent feel that the value of their homes is affected, and that 20 percent to 35 percent feel that the reputation of their areas is damaged. Finally, the insidious nature of air pollution is shown in the mention (10 percent to 25 percent) of the effect of air pollution on the choice of job and shopping place. (The one exception is in St. Louis City, where choice of shopping is most likely dictated by walking distance.)

Although the highest response for any single behavior pattern is 37.9 percent (table 22--care and upkeep of house in St. Clair County), which does not approach the 62.9 percent "somewhat (or worse) bothered" response in St. Clair County (table 21), if we group by sub-area those affected in one or more of the personal circumstances listed (see table 23) we find overall that more than 50 percent of the metropolitan area residents are affected and that the affection ranges from 47.6 percent in St. Louis County to 68.1 percent in Madison County. Thus, the data are supportive.

In addition to measuring the effects of air pollution on certain aspects of living, the survey attempted to gauge the feeling on the relation of air pollution to health. Respondents were asked three questions (Items 25, 26, and 29): How would you rate your health at the present time--excellent, good, fair, poor, or very poor? Do you have any of these health problems--heart trouble, lung trouble, allergies? Do you think air pollution harms people's health?

First of all, there was no significant difference in the number of cases of heart disease, lung ailment, or allergy by sub-area. As shown in table 24, few persons had

Table 23

Persons Affected by Air Pollution in One or More Personal Circumstances by Sub-Area

	Total Sample	St. Louis County	St. Louis City	Madison County	St. Clair County
Persons Affected in One or More of the Personal Circumstances Listed	52.8	47.6	51.2	68.1	58.2
Weighted Base	1452	487	611	160	194

Table 24

Presence or Absence of Air-Pollution-Related Ailments by Level of Bother

	Level of Bother				
	Not At All	Somewhat	Quite A Lot	Weighted Base	Total Ailment Percent
Lung Trouble					
Yes	37.2	31.4	31.4	51	3.6
No	54.9	37.8	7.3	1371	96.4
					100.0
Heart Trouble					
Yes	41.7	43.9	14.4	132	9.2
No	55.4	36.8	7.8	1298	90.8
					100.0
Allergies					
Yes	30.4	53.0	16.6	217	15.3
No	58.5	34.9	6.6	1205	84.7
					100.0

these problems: weighted total of heart disease 134, lung ailment 51, allergy 222. Nine out of ten respondents thought air pollution harmed health: three quarters of the respondents with little education made the connection, and virtually all the more highly educated assumed health injury. However, as table 24 shows, the effects of air pollution on a specific disease were not so well known. Although in all cases those who have air pollution-related ailments are more likely to indicate that they are bothered by air pollution, large proportions seem to feel that they are unaffected.

To pin down this air pollution that affected the respondents, questions were asked to discover its occurrence, its definition, and its source. Respondents were asked (Item 32): As you see it, is there any air pollution here in this neighborhood? Table 25 shows the response.

Table 25 shows widespread recognition (38.7 percent) of air pollution in the neighborhood. Consistent with the pattern shown previously, St. Louis County residents express least awareness (25.8 percent) of air pollution in the neighborhood, while residents of St. Clair County are most aware (57.9 percent) of the problem. It is interesting to note (table 21), however, that again in each sub-area a greater proportion are "bothered" by air pollution than recognize its existence in the neighborhood where they reside. This seems to indicate that residents of neighborhoods relatively free of air pollution are

bothered by exposure to air pollution in other areas, where they work, shop, or travel. On this basis the problem is considered area-wide rather than local.

Table 25

Is There Air Pollution In The Neighborhood

Is There Air Pollution in Neighborhood	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
Yes	38.7	25.8	40.8	47.5	57.9
No	61.3	74.2	59.2	52.5	42.1
Weighted Base	1433	478	600	160	195

Those who replied that there is air pollution in their neighborhood were asked (Item 32): What seasons of the year is air pollution a problem? It should be noted that respondents who said there was no neighborhood air pollution are not included in table 26.

As shown in table 26, most respondents who perceive air pollution in their neighborhood indicate they are most aware of it in the summer. Awareness may increase in summer because windows and doors are open and people are out-of-doors more. It is interesting that Madison County respondents, who are less aware of air pollution in the neighborhood than St. Clair County respondents (see table 25) indicate that they are plagued throughout the year. In general, Illinois respondents indicate that air pollution is present in every season more than Missouri respondents do.

Table 26

What Season is Air Pollution a Problem*

Season	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
Spring	45.8	40.5	43.0	55.4	50.9
Summer	59.8	58.3	57.8	68.9	59.8
Fall	33.7	29.8	25.0	58.1	41.1
Winter	25.6	10.7	22.7	50.0	33.0
Sporadic	21.4	21.4	16.4	29.7	26.8
Entire Year	14.8	7.1	9.4	37.8	19.6
Weighted Base (100.0%)	555	125	244	74	112

*The percentages do not total 100.0 because many respondents gave more than one answer. Those who gave positive responses to all four seasons are also included in the line labeled "Entire Year."

To properly evaluate the opinions and attitudes on air pollution prior to specific questions about local air pollution each respondent was asked (Item 28): The term "air pollution" is used occasionally nowadays. What does it mean to you? Respondents were permitted to supply as many definitions as they desired.

As shown in table 27 more than half the respondents in each sub-area define air pollution as "odor." "Smoke" is second in frequency in each area, except in Madison County, where it is the most frequently mentioned definition.

Table 27

What Does Air Pollution Mean To You*

Definition	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
Odor (Fumes)	56.0	56.7	53.9	54.4	61.8
Smoke	45.9	49.3	35.7	64.6	48.8
Dust and Dirt	19.0	15.0	14.9	32.0	28.8
General Contamination	18.1	20.3	14.9	19.0	20.0
Motor Vehicle Exhausts	15.6	24.7	9.5	9.5	13.5
Chemicals (Insecticides)	12.3	13.3	10.8	10.9	14.7
Radiation	10.9	10.0	12.4	11.6	8.2
Other Unhealthy Conditions (Germs)	10.1	8.7	12.0	8.8	10.0
Fog and Smog	9.6	11.3	9.1	7.5	7.6
Pollens	4.2	4.3	3.7	3.4	6.5
Other		0.3	-	-	1.2
Weighted Base (100.0%)	1224	447	460	147	170
Average Number Responses	2.0	2.1	1.8	2.2	2.2

*The percentages do not add up to 100.0% because many respondents gave more than one answer.

In St. Louis County air pollution means "motor vehicle exhausts" almost twice as frequently as it does in the rest of the survey area.

The correct interpretation of the data in table 27 is not plain. The extent to which the meaning of "air pollution" is based on direct experience of the respondents with the phenomenon and the extent to which the meaning is based on learned definitions of the term are not evident. For example, about 10 percent of the respondents in each area said "air pollution" meant "radiation", which could not have been directly experienced, but must have been learned through reading or hearing about it. "Smoke" and "odor", which are the meanings most frequently given in all sub-areas, are phenomena which can be sensed directly. Does this explain why "smoke", which may be less observable in the horizonless, canyon-like city streets than in the less built-up areas, is taken to mean "air pollution" only one half as frequently in St. Louis City as in Madison County? Or is there actually less smoke in St. Louis City. Is the relatively high "motor vehicle exhaust" response in St. Louis County due to the fact that this pollution is particularly

prevalent there, to the absence of other pollutants, or due to a public education and information campaign which was, for some reason, particularly effective in St. Louis County?

Following the open-ended question on the respondents' definition of air pollution, each person was asked (Item 30): What do you think people in this area think of when they speak of air pollution? Would you guess they mean (see table 28)?

In general, Illinois residents, who note the presence of air pollution more often, include definitional items readily. Significant differences between the two states can be seen in responses to definitions involving odor and dirt.

Table 28

By "Air Pollution" Would You Think Most People Mean--

Listed Definition, Yes Response	Total	St. Louis County	St. Louis City	Madison County	St. Clair County
Frequent Bad Smells in the Air	73.4	67.5	72.5	84.5	81.1
Too Much Dust and Dirt	62.8	54.1	64.7	67.3	75.1
Frequent Nose or Throat Irritation	55.5	59.2	49.5	64.5	57.7
Frequent Irritation of the Eyes	46.5	50.6	42.8	50.3	44.1
Laundry Getting Dirty on the Line	44.8	41.2	40.5	58.1	55.6
Frequent Haze or Fog	33.0	34.4	30.9	25.2	42.1

Other data on the definitions of air pollution, not tabulated here, were obtained in the survey. First, respondents of both sexes define air pollution essentially the same. This runs counter to the notion that women, most responsible for family and household cleanliness, would cite dirt more frequently. Second, respondents, who noted air pollution as a serious problem tend to agree with all listed definitions. Whether or not every listed item is a problem in a neighborhood, general concern appears to make a respondent include more definitional items. A heightened level of disturbance appears to generate broader attributes of the problem.

Recalling that these listed definitions were given as what "people in this area" might think, a question arises as to whether the responses relate to the entire metropolitan area, or to the local situation. Apparently, the responses relate to the local situation. At least they are affected by the local situation. For example, persons of low educational attainment are less likely to agree with the listed definitions, perhaps because they are ignorant of the meanings or because they are less sensitive to such environmental factors. Persons of high educational attainment agree with fewer definitions (although their knowledge presumably would be more profound), probably because their higher incomes permit them to live in areas of relatively clean air. The middle education range exposed to pollution and knowledgeable, include the listed definitions most frequently.

Although it was not a goal of this survey to evaluate the accuracy of the sample's perceptions of air pollution, the reader can get some idea of this accuracy by comparing table 28 data with actual air sampling data included in Appendix B to this report.[4]

To get at the respondents' opinions as to the causes of the air pollution in their neighborhood they were asked first an open ended question on causes and then a restricted-response question on causes, similar to the pair of questions on the definition of air pollution. Those who indicated there was air pollution in their neighborhood were first asked (Item 32): Who do you think causes the air pollution that affects this neighborhood? Table 29 displays the response.

For most persons, regardless of location, factories and businesses are thought to be the major causes of neighborhood air pollution. In the attribution of cause to other agents, however, the sub-areas differed.

Table 29

Who Do You Think Causes Pollution In Neighborhood

Causes	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
Factories and Businesses	65.5	41.8	67.3	78.1	74.3
Sewers, Septic Tanks, and Polluted Water	16.3	31.6	14.0	12.3	8.6
Exhaust from Transport Agents	12.3	17.7	15.9	5.5	5.7
Road Dust	6.9	1.3	3.7	5.5	19.0
Garbage and Refuse Dumps	6.0	3.8	5.6	6.8	8.6
Private Burning in Yards	5.0	11.4	2.8	4.1	3.8
General Dirt in Area	4.4	5.1	4.7	1.4	4.8
Burning of Coal	4.0	-	6.5	4.1	2.9
Ragweed, etc.	3.1	6.3	1.9	1.4	3.8
Other	2.1	3.8	-	4.1	2.9
Weighted Base	479	97	204	73	105

[4] See also: J. D. Williams, H. C. Mitchell, C. M. Copley; St. Louis Area Interstate Air Pollution Study, An Approach Toward An Air Resource Management Program; APCA 64-14; 22 June 1964

In St. Louis County, other significant sources cited are sewers and water pollution (31.6 percent), and private burning in yards (11.4 percent). Ragweed, while a relatively minor source (6.3 percent) is cited more frequently in St. Louis County than in the other sub-areas. In St. Louis City, motor vehicles (15.9 percent) and sewers and water pollution (14.0 percent) are of importance. In Madison County only sewers and water pollution (12.3 percent) are mentioned as sources of any significance other than factories and businesses. Road dust is rated as a significant source (19.0 percent) in St. Clair County and is mentioned four to twenty times as frequently as it is in the other sub-areas. Garbage and refuse dumps, while not a frequently named source in St. Clair County (8.6 percent) appears to be of greater significance here than in the other areas.

Coal burning, without attribution to any particular activity as the source, is considered more of a problem in St. Louis City than in other areas; the proportion mentioning it, however, is small: 6.5 percent.

Following his volunteering causes, each respondent was asked (Item 33): Do you think factories (etc. see table 30) are important or not important in causing air pollution that affects this neighborhood? By this means each respondent was exposed to a fairly thorough consideration of possible sources.

Table 30

Do You Think Factories (etc) Are Important in Causing Air Pollution

Causes	Percent Who Think Causes Important				
	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
Factories	57.6	35.2	[61.2]	[66.3]	[71.8]
Buses and Trucks	45.3	[46.2]	[50.3]	34.8	40.7
Odors from Sewage	44.6	46.7	[48.7]	37.4	37.3
Street and Road Dust	41.2	29.9	41.2	33.7	[49.6]
Autos	40.4	38.3	46.0	28.3	39.0
Ragweed and Other Causes of Hay Fever	34.4	[42.7]	27.8	32.2	41.9
Burning of Leaves and Trash in Yards	29.2	28.3	32.5	27.2	23.1
Smoke from Houses	27.9	15.0	38.0	23.1	24.6
Garbage and Refuse Dumps	27.1	17.8	27.2	26.1	[40.7]
Businesses and other Buildings	22.2	14.3	30.1	16.3	18.6

Examining first the attributed causes by sub-area, St. Louis County residents are most concerned about buses and trucks (46.2 percent), sewage odors (46.7 percent), and hay fever precipitants (42.7 percent). St. Louis City respondents are most likely to attribute air pollution to factories, (61.2 percent), buses and trucks (50.3 percent, and sewage odors (48.7 percent). In Madison County major attention is focused on factories

(66.3 percent); all others are of equal but lesser importance. In St. Clair County, street and road dust (49.6 percent) is significant although much less so than factories (71.8 percent).

Comparing the relative importance of the listed causes among sub-area[illegible] actories are particularly important in St. Clair County; house smoke is most often felt to be significant in St. Louis City. Businesses also are most frequently blamed for air pollution in the city, as are "buses and trucks" and "automobiles." This is probably a simple recognition of the greater incidence of such agents in the city. Garbage and refuse dumps are most often considered important by respondents from St. Clair County. The City and County of St. Louis seem particularly plagued with odors from sewage. Street and road dust is found to be significant most often in St. Louis City and St. Clair County, while ragweed and other pollens are most notable in St. Louis and St. Clair counties.

COMMUNICATION AND THE PERCEPTION OF AIR POLLUTION

The next series of questions deals with the relation between various sources of information and the perception of air pollution as a problem. It should be kept in mind throughout this section that social scientists[5] have found that persons tend to discriminate in their selection of a topic to be read or discussed. That is, they tend to selectively perceive materials which fit already formed interests and opinions.

Respondents were asked (Item 41): Have you ever heard about air pollution from any of these sources (newspapers, etc, see table 31)? Table 31 compares the seriousness of air pollution (neighborhood level--table 13) to the respondents with their recollection of hearing about it from various communication sources.

Two categories of information source are listed in table 31. The first three items are mass communication items. The individual obtains his information as presented by an outside agent with no opportunity for discussion. The remaining items involve some kind of personal contact with varying degrees of opportunity for comment and reinterpretation.

Table 31 indicates that mass media communication on air pollution is not significantly related to the repondent's opinion of the seriousness of the problem. Equal proportions, hearing and not hearing about air pollution in the mass media, note the problem or the absence of it in the neighborhood. This lack of relationship disappears when the communication is of a more personal nature. For all personal contact situations, except with local government members, communication is highly related to a conception of air pollution as serious. Local officials may not often engage in the give-and-take of the other more personal situations, and may thus have less influence.

It should be emphasized that the cause and effect relationship here, if any, is not plain. One concerned with air pollution in the neighborhood can be expected to discuss the problem; on the other hand, discussion of the problem can lead to an increased awareness and concern. In this vein, it is entirely possible to use attitudes about the seriousness of air pollution as the base on which to judge communication. However, whether the seriousness of the problem causes the respondent to hear about the problem or hearing about the problem causes the concern with the problem does not alter the significance of the various forms of communication.

Before examining the responses to the remaining questions in this series, it will be helpful to have some insight into the interest of the respondents in air pollution. At the completion of each interview the interviewer indicated the level of interest of the respondent, and the results are given in table 32.

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[5] See, for example, J. M. Levine and Gardner Murphy; The Learning and Forgetting of Controversial-Literature; J. of Abnormal and Social Psychology; 1943, 38:508-517

Table 31

Seriousness of Air Pollution By Exposure to Information Sources

	Total Exposure Percent	Very Serious	Somewhat Serious	Not Serious	Weighted Base
Newspapers					
Yes	67.8	9.1	16.4	74.5	899
No	32.2	12.9	18.3	68.8	427
	100.0				
Television					
Yes	49.1	11.1	16.5	72.4	649
No	50.9	9.8	17.5	72.7	673
	100.0				
Magazines					
Yes	44.4	10.2	18.1	71.3	587
No	55.6	10.6	15.9	73.5	734
	100.0				
Friend or Relative					
Yes	34.4	16.9	26.5	56.6	456
No	65.6	6.9	12.0	81.1	869
	100.0				
A Doctor					
Yes	14.0	20.5	27.0	52.5	185
No	86.0	8.7	15.3	76.0	1135
	100.0				
Someone in Local Government					
Yes	12.3	11.1	15.4	73.5	162
No	87.7	10.3	17.1	72.6	1155
	100.0				
Community Wide Citizen's Organization					
Yes	11.1	16.4	27.4	56.2	146
No	88.9	9.5	15.6	74.9	1168
	100.0				
Neighborhood Organization					
Yes	10.4	20.4	27.0	52.6	137
No	89.6	9.0	15.9	75.1	1184
	100.0				

It is impossible to assess the particular questionnaire items which defined the perception of interest level to the interviewer. Some overall respondent attitude emerged, but measurement of this attitude was subjective, and this should be kept in mind in considering the relationships examined in the remainder of this section.

Only in St. Clair County is there a sizeable proportion of respondents with "exceptionally high" interest in air pollution. Both Illinois counties have higher ("Exceptionally high" or "High") interest than the Missouri sub-areas. Respondents in St. Louis County, perhaps because of their higher educational level, express greater interest ("Average" or higher) than any of the other sub-areas even though the problem is not a great one for them.

Table 33, comparing interest in air pollution to hearing about it in the mass media, shows a positive relation between the two. But table 31 shows that hearing about air pollution through mass communication is not related to the perceived seriousness of an air pollution problem in the neighborhood. Therefore, the recognition of air pollution in

Table 32

Interest in Air Pollution

Interest Level	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
Exceptionally High (Wanted to talk at length about subject)	6.0	2.2	5.5	8.2	15.0
High (Made spontaneous comments but could be kept to the point)	26.0	24.5	26.5	32.1	22.8
Average (Didn't volunteer comments)	40.6	50.4	37.6	28.9	35.8
Low (Seemed to know or care little about subject)	27.4	22.9	30.4	30.8	26.4
Weighted Base	1410	468	590	159	193

Table 33

Interest in Air Pollution By Exposure to Mass Media Discussion

Source and Exposure	Interest Level: Exceptionally High	High	Average	Low	Weighted Base	Total Exposure Percent
Newspapers						
Yes	7.9	33.1	42.3	16.7	904	64.1
No	2.8	13.2	37.5	46.5	506	35.9
						100.0
Television						
Yes	8.9	33.3	39.8	18.0	655	46.8
No	3.5	19.8	41.0	35.7	746	53.2
						100.0
Magazines						
Yes	10.0	35.0	44.3	10.7	580	41.4
No	3.3	19.6	38.1	39.0	821	58.6
						100.0

the neighborhood is presumed to be a direct observation (at least it is not related to mass communications), and if selective perception operates in the relationship between interest and hearing about air pollution through the mass media it does so in terms of other causes of interest, such as a general concern about governmental services, rather than because of a particular problem state.

To substantiate this analysis the relationship between interest in air pollution and its seriousness in the neighborhood is shown in table 34.

Table 34

Seriousness of Air Pollution in the Neighborhood By Interest in Air Pollution Subject

Interest Level	Very Serious	Somewhat Serious	Not Serious
Exceptionally High	25.4	12.6	2.2
High	41.7	40.0	22.6
Average	24.1	35.9	47.0
Low	8.8	11.5	28.2
Weighted Base	134	226	929

The preponderance of those who think air pollution is a very serious problem in the neighborhood show high or exceptionally high interest in the subject. The majority of those who do not feel the problem is serious indicate an average or low interest in the topic. However, approximately one-fourth of the subjects reverse this relationship, indicating that something other than perception of the problem is related to their interest level. Presumably particular campaign approaches may reach those who perceive the problem but feel no interest in it.[6] Other campaigns may stimulate the interest of sizeable portions of those who do not presently perceive air pollution as serious in their own locale.

One final relationship involving communications exposure may be justified. As described earlier (table 18), the respondents were asked whether they ever complained or felt like complaining about air pollution. Table 35 compares exposure to the subject with attitudes toward complaining.

The relationship in this table is similar to that shown in table 31. Hearing about air pollution through mass communications seems to be reasonably unrelated to complaint desire or to the actuality of complaining: at least 80 percent of those exposed to mass media do not wish to complain. Personal contact experience is generally more related, the disinterest in complaining dropping to about two out of three.

Actual complaints, as contrasted to only desire for complaints, are related to participation in citizen's organizations of both community and neighborhood jurisdiction. This is plausible since, in such public discussions, potential complaint recipients are pointed out to the participants. If the number who wish to complain but do not were told how such complaints might be registered, greater evidence of public concern could probably be obtained.

PUBLIC RECOMMENDATIONS

To reveal attitudes toward government action to abate air pollution the sample population was asked a series of questions on what kind of government, if any, should take action and whether they, the sample population, were willing to finance the action.

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[6] For information concerning influentials see: Wendall, Bell, Richard J. Hill, and Charles R. Wright; Public Leadership; San Francisco, Chandler Publishing Co.; 1961. Herbert Gans, The Urban Villagers; Glencoe, Ill; The Free Press, 1962. Elihu Katz, and Paul F. Lazarsfeld; Personal Influence; Glencoe, Ill; The Free Press, 1955. Charles Press, Main Street Politics; East Lansing, Mich; Mich. State Univ; 1962. Ira DeA Reid, and Emile L. Ehle, Leadership Selection in Urban Locality Areas, Public Opinion Quarterly, 14: (Summer 1950); pp. 262-284.

Table 35

Exposure to Communication Sources by Attitudes Towards Complaining About Air Pollution

	Did Not Wish to Complain	Wished to Complain And Did Not	Wished to Complain And Did	Weighted Base	Total Exposure Percent*
Newspapers					
Yes	82.6	13.4	4.0	920	64.0
No	90.0	7.0	2.1	517	36.0
					100.0
Television					
Yes	82.8	12.9	4.3	669	46.7
No	87.8	9.7	2.5	764	53.3
					100.0
Magazines					
Yes	79.8	15.1	5.1	590	41.2
No	89.2	8.5	2.3	843	58.8
					100.0
Friend or Relative					
Yes	68.2	24.6	7.2	459	32.0
No	93.7	4.7	1.6	979	68.0
					100.0
A Doctor					
Yes	66.5	25.9	7.6	185	12.9
No	88.7	8.6	2.7	1245	87.1
					100.0
Someone in Local Government					
Yes	80.0	12.1	7.9	165	11.5
No	86.1	11.1	2.8	1264	88.5
					100.0
Community Wide Citizens Organization					
Yes	69.8	19.7	10.5	152	10.7
No	87.5	10.1	2.4	1273	89.3
					100.0
Neighborhood Organization					
Yes	62.3	24.4	13.3	135	9.4
No	88.0	9.6	2.4	1295	90.6
					100.0

*These percentages are not identical to those in table 31 because certain respondents answered only one of the two cross tabulation questions involved.

Respondents were asked (Item 36): Do you think the following organizations are doing all they should about air pollution now? Table 36 lists the responses by sub-area.

Keeping in mind the order of concern with air pollution by sub-area (St. Clair County most concerned, Madison County second, St. Louis City third, St. Louis County fourth), it is apparent that the higher the concern the lower the feeling that organizations are effective in combating air pollution. It is also interesting to note that, for the three governmental agencies (local, county, and state), the more removed the agency from the respondent, the less the respondent feels the agency is doing what it should be doing about

the problem. This may be due to several factors. First, the respondents may be familiar with local efforts to control air pollution while they are unaware of programs at a higher governmental level. Second, the respondents may expect more from broader jurisdictional or higher level governments with respect to air pollution control, and may feel that local governments are not the proper body for remedial efforts. This possibility will be explored later in this section.

Table 36

Are Organizations Doing All They Should About Air Pollution Now

"Yes" Response	Total	St. Louis County	St. Louis City	Madison County	St. Clair County
Local Government	55.8	65.7	53.5	48.3	42.9
County Government	51.4	59.6	53.1	41.9	32.9
State Government	46.8	53.4	48.7	38.7	32.3
Citizens' Groups	50.3	57.0	51.9	41.0	37.4
Industry	42.1	40.8	49.8	32.9	30.5

Industry is felt by the fewest respondents to be doing all it should to combat air pollution. However, in this instance St. Louis City respondents are more favorable in their evaluation of industry's performance than are persons from other locales. The smoke abatement ordinance in St. Louis City and the compliance by industry may account for this reversal of order. At the time of this survey governmental control programs in the other areas were weak or non-existent.

Not shown in table 36, but as might be expected, the more serious air pollution is perceived the smaller is the number of persons who feel that each of these agencies is doing all it can about the problem. Also, the higher the education level of the respondent the less likely is he to feel that effective action exists in these organizations. Again this result may be because of awareness of the actual lack of programs, or may be an attitude of the educated demanding greater organizational activity. Although areas inhabited by the educated persons of high socio-economic status may have less of an air pollution problem, the area-wide problem is perceived.

Table 36 indicates that many persons feel that governmental bodies should be doing more than they are doing now. Even in St. Louis County, where air pollution is not especially troublesome, a significant number of people express this feeling. This suggests that the respondents would favor a governmental action program, and this suggestion is confirmed in the response to another question (Item 35): Assuming that something could be done about it, do you think some government body should do something about air pollution? The response is not tabulated here, but more than 90 percent of all respondents feel that some governmental agency should do something about air pollution. The only marked difference in response is between those who do and those who do not believe that air pollution is a health hazard. Of those who feel that health is affected 93 percent feel that a governmental agency should do something, as compared with 78 percent of those respondents who do not feel health involvement.

Once one begins speaking of action programs some method of financing is implied. The respondents were asked two questions relating to this (Items 38 and 39): If air pollution control would mean additional taxes of about $1.00 a year, would you support the effort? and If the cost of living went up about $5.00 per year because companies had to spend money to control their air pollution, would you support the effort? Table 37 shows the response.

Table 37

Willingness to Pay for Air Pollution Control by Sub-Area

	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
Willingness to Pay $1 Additional Taxes for Control					
Yes	85.1	85.9	84.4	86.3	84.8
No	14.9	14.1	15.6	13.7	15.2
Weighted Base		432	550	139	191
Willingness to Pay $5 Cost of Living Increase for Control					
Yes	66.4	71.0	66.1	62.7	58.9
No	33.6	29.0	33.9	37.3	41.1
Weighted Base		462	569	153	190

It would appear, paradoxically, that the less air pollution is a concern (recalling that sub-areas are ordered from left to right by increasing concern, as in this table) the more willing the respondents are to face a cost of living increase. However, average family incomes by sub-area are ordered in decreasing amount from left to right in the table (refer to table 5). Table 37, then, compounds increasing concern over air pollution with decreasing ability to pay for correction of the problem. The less affirmative response in the cost-of-living-increase half of the table may be explained by the higher dollar amount. Also, the general opinion that industry is doing less than other organizations (table 36) may affect willingness to pay to support industry's control efforts.

Other data collected in the survey, not shown in table 37, indicates that as the income of the respondent rises so does his willingness to pay tax or cost of living increases to support air pollution control. It has already been stated that, particularly in Missouri, those with higher incomes are less likely to live in polluted areas: their willingness to pay for a program may indicate a concern for the overall area coupled with a greater ability to pay. Whether or not the residents see air pollution as a neighborhood problem, over 80 percent are willing to pay a tax increase of $1.00 per year and approximately 65 percent would submit to a cost of living rise of $5.00 per year.

Table 38 compares the responses of those who would support a tax increase for air pollution control with the responses of those who would submit to a cost of living increase.

Table 38

Payment Willingness--Cost of Living Increase by Tax Increase

Cost of Living Approval	Tax Increase Approval	
	Yes	No
Yes	78.6	14.0
No	21.4	86.0
Weighted Base	1090	187

For the most part, if one is willing to support one cost he is willing to support the other. However, 21 percent of those who would support a tax rise are unwilling to recommend the cost of living increase, and 14 percent of those who do not want the taxation would approve the cost of living rise.

Having discovered that respondents desire some governmental action and are willing to pay for it, we are next interested in attitudes concerning the proper agency or unit of government to take action. Table 39 contains responses to the question, asked of the approximately 90 percent who feel some government body should do something (Item 35): Which one of these do you think should take the leadership? Each respondent was shown a card listing the items shown in table 39 before he responded.

Table 39

Which Agency Should Take Leadership

Agency	Total Area	St. Louis County	St, Louis City	Madison County	St. Clair County
City government	32.4	21.0	45.2	21.8	32.5
County government	4.2	7.0	0.7	8.2	6.0
Combined agency for this side of river	5.6	4.0	4.4	14.4	5.4
Bi-state agency for whole metropolitan area	40.5	51.3	36.8	39.2	30.7
State government	10.1	10.0	8.1	17.8	9.6
Federal government	8.9	8.3	5.5	12.3	19.1
Weighted Base (100%)*	1279	447	520	146	166

*A few individuals indicated more than one agency, accounting for totals in excess of 100.0 percent.

It is not too surprising to find that respondents in St. Louis City and St. Clair County, which includes the City of East St. Louis, indicate much greater preference for city government control than do respondents in other areas. In the other areas, city governments, because of their limited jurisdictions, could hope to have little effect. Further, the smoke abatement ordinances in St. Louis City are regarded as reasonably successful, and in East St. Louis a city program in air pollution control had been initiated and in the news just prior to the survey.

In all areas, considerable support for a bi-state agency is indicated. In St. Louis County (51.3 percent) and in Madison County (39.2 percent) a bi-state agency was preferred over all others, while in St. Louis City (36.8 percent) and St. Clair County (32.2 percent) it is rated second only to city government action.

It may be significant to note that from 45 percent to 65 percent in each sub-area indicate support for action at a governmental level (other than Federal) which transcends county lines; i.e., one agency for the entire area in each state, one bi-state agency

covering the whole survey area, or state level action. In the Illinois areas, particularly in St. Clair County, support for Federal leadership is greater than that expressed in the Missouri area.

The education level of the respondent is related to his conception of what governmental agency should supervise or control an air pollution program. Table 40 indicates the relationship.

Table 40

Governmental Leadership Preference by Education Level

Government Preference	Educational Attainment 3 - 4 Yrs	5 - 6 Yrs	7 - 8 Yrs	9 - 11 Yrs	12 Yrs	College (Yrs) 1 - 3	4 or more
City	47.4	50.5	33.7	35.3	32.3	34.5	18.7
County	7.6	--	4.6	3.3	2.8	2.9	8.1
Single agency for this side of river	1.9	1.6	6.1	8.0	6.9	2.6	2.3
Bi-state agency for entire area	19.3	20.2	33.6	34.3	39.3	54.9	68.6
State	13.0	14.1	12.4	10.7	9.6	8.5	1.6
Federal	10.8	13.6	9.6	7.9	9.1	5.6	5.0
Weighted Base	53	62	280	246	354	160	128

As education level increases the proportion recommending a bi-state control agency increases. This is accompanied by a decline in the percent of respondents feeling that city or county government should be the leadership agency.

There is also a reasonably large drop in the proportion of people preferring state and federal involvement as educational attainment increases. If these more educated persons feel that local control would be ineffective and disapprove of state or federal action, their preference for bi-state direction would be logical.

The establishment of an effective inter-county or bi-state air pollution control program is likely to require support from the political officials in the jurisdictions concerned. With this in mind, each respondent was asked two questions (Items 37 and 32): Do you think your officials here in (City) (Township) would cooperate with other local governments to develop an area-wide air pollution control program for this side of the river?; and Do you think your officials here in (City) (Township) would cooperate with other local governments to develop an area-wide pollution control program--one that would cover both sides of the river? Responses to these questions are contained in table 41.

The overwhelming majority (more than two thirds) feel officials would cooperate on the same side of the river. Fewer think their officials would cooperate with officials across the river.

Examining the proportion in the sample areas who do not feel that either form of cooperation is possible, one finds that Illinois residents tend to be more skeptical about

the willingness of their local officials to support an interjurisdictional program than do residents of Missouri. Actual experience in such associations or even consideration of such approaches in Illinois may be more limited than Missouri experience. The Illinois residents feel that here, as in other programs, their local officials' wishes and influence may be overpowered by the central cities of St. Louis and East St. Louis.

Table 41

Do You Think Local Officials Would Cooperate

	Total Area	St. Louis County	St. Louis City	Madison County	St. Clair County
This side of River					
Yes	72.9	75.2	70.1	67.9	79.4
No	6.7	4.6	5.0	13.2	12.4
Don't Know	20.4	20.2	24.9	18.9	8.2
Both sides of River					
Yes	62.3	62.5	63.4	56.6	62.9
No	12.8	11.7	7.9	18.9	25.8
Don't Know	24.9	25.8	28.7	24.5	11.3
Weighted Base	1444	486	605	159	194

Sizeable numbers of the sample are uncommitted in this issue. They do not know whether or not such cooperation could occur. However they arrived at this conclusion, they are perhaps the most realistic respondents since each issue involving such cooperation appears to develop somewhat apart from the success or failure of past cooperative ventures.

On the whole, it can be said that if experts on air pollution control programs feel that metropolitan-area-wide cooperation is necessary, such cooperation is feasible in the public mind.

It is conceivable that some persons believe that cooperation is an either-or possibility. They may feel that such cooperation could exist only in one or the other form specified. This is not the case, however, as Table 42 indicates.

Table 42

Cooperation on Both Sides of River by Cooperation on One Side of River

Will Jurisdictions Cooperate Both Sides	Will Jurisdictions Cooperate This Side	
	Yes	No
Yes	90.1	17.0
No	9.8	83.0
Weighted Base	856	92

Ninety percent of those who say officials will cooperate on this side of the river say officials will cooperate with the other side.

The fairly sizeable preference for bi-state control and the even greater estimates of the possibility of such cooperation bode well for a control program, governmentally supervised, and tax supported in the St. Louis Metropolitan Area.

It is suggested, however, that these favorable signs be treated with caution. A survey of this kind does not allow for the impact of counter influences. If an action program is devised, partisanship and influential opposition may make actual commitment differ from initial predisposition. Any threatening of local interests will surely bring about a counter campaign. If reform can be initiated without wholesale governmental changes, the acceptance will be more likely.[7]

---

[7] For further information, including analysis of St. Louis area programs and voting behavior see: Bollens, John C., Exploring the Metropolitan Community; Berkeley, University of California Press; 1961. Greer, Scott; Metro-Politics-A Study of Political Culture, New York; John Wiley and Sons; 1964. Schmandt, Henry J. et al., Metropolitan Reform in St. Louis; New York, Holt, Renehart and Winston; 1961.

RESULTS AND CONCLUSIONS

In the St. Louis Metropolitan Area in 1963 clean air at first glance apparently was more important to suburbanites than to city dwellers:[8] suburban residents cited clean air as something they liked about their area more frequently than did city residents; suburban residents, particularly in the Illinois area, also cited air pollution as a "dislike" more frequently than did city residents. The city population, a large portion of which is non-white, was more concerned with other social problems, such as juvenile delinquency and unemployment. Other data repeats this pattern by showing that the non-white resident was less satisfied with his neighborhood than was the white resident, but that air pollution was not a significant cause of his dissatisfaction; this contrasts with the metropolitan area as a whole in which air pollution in the neighborhood was significantly related to dissatisfaction with their city or township as a place to live.

Apparently, then, one community problem can be displaced as a cause of concern by the existence of other problems. This is directly supported by other data from the survey: to residents who ranked their communities as "excellent" no problem was singled out as particularly serious; residents who ranked their communities as "good," "fair" or "poor" listed unemployment and juvenile delinquency as most important; residents who ranked their communities as "very poor" most often cited air pollution as the most serious community problem. No single problem appeared to be a determinant of the rating of a community as a place to live.

The problem of air pollution can be masked or can mask other social problems. Certainly where it exists it can, depending upon the existence of other problems, be a considerable factor in the overall feeling of a resident about his community. St. Louis County residents, who thought no problem was very serious in their community, cited lack of recreation areas as their most serious problem. Juvenile delinquency was most important to St. Louis City residents; air pollution ranked fourth (of six problems). In Madison County, Illinois, air pollution ranked first.

Other survey data showed that the residents' rating of the effectiveness of their officials was related to their rating of their city or town as a place to live, and was related to their perception of the seriousness of various problems.

Although few persons reported that they had complained about any of the problems presented, there was a relation between those who wished to complain and those who gave a low rating to the effectiveness of their officials. It is also significant that those who thought air pollution was the most serious problem in their community were those who most frequently wished to complain. Other complaint patterns evidenced themselves in the survey. Those who wished least to complain were the highly educated (presumably those living in communities with the fewest or least serious problems and with the least cause to complain), and the relatively uneducated residents (presumably those living in areas having the most serious problems, but who may have been afraid to complain or who did not know how or to whom to complain). Those who wished to complain the most were in the middle education bracket (presumably those who are living in communities which experienced the problems to some degree, and who are articulate and knowledgable about making complaints). There was evidence, too, that the residents felt some problems could be more readily dealt with by complaint than others; e.g., you can call the police about a juvenile delinquency problem, but where can you make an effective single complaint about unemployment problems? Air pollution may fall into both catergories. Where some local agency or official is strongly identified with air pollution more complaints are likely than in those areas where no focus of complaint exists.

---

[8] In this section, "city" refers to St. Louis city; "suburbs" refers to the rest of the metropolitan area.

With respect to specific attitudes toward air pollution, almost 50 percent of the entire metropolitan population said air pollution was at least "somewhat" bothersome, and in the Illinois segment two thirds of the population so indicated. A consistent pattern of the perceived seriousness of the problem emerged for the three major-area divisions: St. Louis County considered the problem least serious, the Illinois counties considered it most serious, St. Louis City came between. Air pollution affected personal aspects of living more in Illinois than elsewhere, but even in St. Louis County 20 percent of the residents stated that air pollution affected their choice of jobs and affected household maintenance activities. For the overall area the number of residents who were affected in one or more personal aspects of living equalled the number who were "somewhat" bothered by the problem. Nine out of ten residents thought air pollution adversely affected health, and the more highly educated made the connection almost unanimously. However, a large portion of those afflicted with ailments (such as lung and heart troubles and allergies), to which air pollution is strongly implicated as a contributory factor, stated that they were not bothered by air pollution.

Forty percent of the overall metropolitan sample experienced air pollution in the "neighborhood" and, since almost half were "somewhat bothered," many must have been bothered at work, on the way to work or at some other activity away from home. Seasonally, the sample experienced air pollution most in the summer; this might be explained in terms of the types of sources which may exist in an area as well as by the fact that in summer people are out of doors more or are indoors with windows and doors open.

In defining air pollution, more than 50 percent listed odor; smoke was second. The more serious a respondent considered air pollution the greater were the number of listed definitions which he included for it.

Factories and businesses were most often cited as the cause of air pollution and, as was the case with respect to definitions of air pollution, the more serious the problem was considered the greater were the number of causes cited.

In summary, the citizens of Metropolitan St. Louis were well aware of air pollution as a problem and were bothered by it, knew what the components of air pollution were and what caused it, believed that air pollution adversely affected health, and were aware that certain aspects of their daily living were adversely affected by the problem.

Data on the effectiveness of the mass media in communicating air pollution information showed a somewhat inconsistent pattern. Although the perceived seriousness of air pollution as a problem did not relate to a respondent's reading about pollution in the newspaper or hearing about it on television or radio, the interest of the respondent in air pollution did relate to such exposure. Further, a considerable portion who were "interested" did not perceive the problem as serious for them personally. With respect to exposure to the subject of air pollution in personal contact situations (rather than through the mass media) the data is consistent: perceived "seriousness" and "interest" both related to hearing or talking about air pollution with a doctor or in a community or neighborhood organization. However, whether hearing about air pollution caused the interest or the interest caused the respondent to talk about it could not be determined from the data.

As might be expected, the more serious the resident thought air pollution was, the more he was inclined to feel that government and industry were not doing enough to control it. Industry was thought by St. Louis County and the Illinois counties to be making the least control effort, but St. Louis City residents gave industry a more favorable rating. Whatever their rating of industry and government efforts to control air pollution, some 90 percent of the residents believed that something should be done about the problem; the percentage was even higher among the highly educated and among those who believed their health was affected by pollution. Eighty five percent of the residents were

willing to pay $1 per year in taxes to control air pollution, and 66 percent were willing to pay a $5 a year increase in the cost of living for this purpose. The increased cost of living hypothetically was to be brought on by manufacturers having to install control devices.

Although St. Louis City residents desired that the city government be responsible for the control of air pollution, a bi-state control agency was generally supported in all areas. The more highly educated preferred a bi-state agency. No other governmental level -- Federal, State, local -- was generally supported. More than two thirds of the residents believed that their government officials would cooperate with other officials on the same side of the river in the development of an area-wide control agency for their side of the river, and slightly less than two thirds of the residents believed that their officials would cooperate with officials on the other side of the river in developing an agency covering both sides of the river. In other words, if efforts to establish an area-wide control organization to tackle the problem of air pollution in the St. Louis area were to be made, the citizens say they would support it and the citizens believe their public officials would support it.

APPENDIX A

QUESTIONNAIRE

NATIONAL OPINION RESEARCH CENTER
University of Chicago

Budget Bureau
Number: 68-6325
Expires 9-30-63
NORC 472
5/63

St. Louis Community Study
D-2-54

_____ (1-4)

Field Control

Segment number (three digits)	
Household number (one digit)	

RESPONDENT'S NAME _____

STREET ADDRESS _____

CITY _____ STATE _____

INTRODUCTION

Hello, I'm _____ from the National Opinion Research Center of the University of Chicago. We have been asked by a group of local, state, and federal agencies to conduct a study in the St. Louis area about some particular kinds of problems faced in and around a large city. Your household is in our sample and I would like to ask you some questions about this area.

But first, in order to determine whom to interview, I need to know some things about your household. (BEGIN ENUMERATION ON NEXT PAGE)

For office use only:

Grid: E _____ (5-7)
N _____ (8-10)

Tract: _____ (11-14)

Block: _____ (15-17)

A. First, how many people are there living in this household? (INCLUDE ALL CHILDREN, PEOPLE TEMPORARILY AWAY, ROOMERS, ETC.)

NUMBER OF PEOPLE: _____

B. NAMES AND AGES OF HOUSEHOLD RESIDENTS:

(1) Who are the people 20 or over living here--from oldest to youngest? (ENTER NAMES AND AGES IN ENUMERATION BOX BELOW)

(2) Are there any married persons under 20 living here? (ENTER NAMES AND AGES IN ENUMERATION BOX)

(3) IF NO ONE LISTED IN ENUMERATION BOX THUS FAR: I'd like the names and ages of the people who live in this household--excluding children. (ENTER NAMES AND AGES IN ENUMERATION BOX)

C. ASK THE FOLLOWING FOR EACH PERSON LISTED:

(4) What is (NAME'S) relation to the head of the household?

(5) RECORD SEX OF PERSON M FOR MALE AND F FOR FEMALE

ENUMERATION BOX

NAME	Age	Relation to Head	Sex	Indicate Respondent By Check
1.				
2.				
3.				
4.				
5.				

D. ASK ABOUT OTHER HOUSEHOLD RESIDENTS:

(6) Finally, I'd like to know about the (other) residents under 20. Could you tell me how many residents are...

... Under six years old? (ENTER NUMBER) _____

... 6 to 13 years of age? (ENTER NUMBER) _____

... 14 to 19? (ENTER NUMBER) _____

4. How long have you lived in the greater St. Louis area? (Includes St. Louis city, St. Louis County, St. Charles County and Jefferson County, Missouri; and Madison and St. Clair County, Illinois)

Under six months	39-	0
Six months to one year .		1
1 to less than 3 years .		2
3 to less than 5 years .		3
5 to 10 years		4
10 to 15 years		5
15 to 20 years		6
20 to 30 years		7
30 to 40 years		8
40 years and over . . .		9
All my life		☐

---

5. How long have you lived in (this county) (the city of St. Louis)?

Under six months	40-	0
Six months to one year .		1
1 to less than 3 years .		2
3 to less than 5 years .		3
5 to 10 years		4
10 to 15 years		5
15 to 20 years		6
20 to 30 years		7
30 to 40 years		8
40 years and over . . .		9
All my life		☐

---

6. A. How long have you lived in this neighborhood--right around here?

Under six months	41-	0
Six months to one year .		1
1 to less than 3 years .		2
3 to less than 5 years .		3
5 to 10 years		4
10 to 15 years		5
15 to 20 years		6
20 to 30 years		7
30 to 40 years		8
40 years and over . . .		9
All my life		☐ *

(CONTINUE Q. 6 ON NEXT PAGE)

6. (Continued)

*IF "ALL MY LIFE" TO Q. 6 A, SKIP 6 B AND 6 C

B. Where did you live just before you moved to this neighborhood?

42-

43-

44-

C. Why did you leave there? (What other reasons did you have?)

45-

46-

47-

48-

49-

7. I will mention a few problems which different communities are facing. How would you rate each of these for (CITY) (TOWNSHIP)? First, recreation areas and programs--would you rate them very serious, somewhat serious, or not serious? (ASK ABOUT EACH ITEM BELOW)

	Very serious	Somewhat serious	Not serious	Don't know	
A. Recreation areas and programs	1	2	3	y	50-
B. Unemployment	1	2	3	y	51-
C. Air pollution	1	2	3	y	52-
D. Race problems	1	2	3	y	53-
E. Garbage and refuse collection and disposal	1	2	3	y	54-
F. Juvenile delinquency	1	2	3	y	55-
G. Is there any other problem you feel is important here in (CITY) (TOWNSHIP)? No . . ☐ GO TO Q. 7 H Yes . ☐ * _____ *ENTER PROBLEM ABOVE AND ASK: (1) Would you rate (PROBLEM IN 7 G) very serious, somewhat serious, or not serious?	1	2	3	y	56-

(CONTINUE Q. 7 ON NEXT PAGE)

7. (Continued)

ASK IF MORE THAN ONE ITEM CODED "VERY SERIOUS":

H. Now, of the following problems, which would you rate as the most serious problem in (CITY) (TOWNSHIP)? (READ PROBLEMS REPORTED AS "VERY SERIOUS" IN Q. 7 A-G)

_____ 57-

ASK IF MORE THAN ONE PROBLEM CODED "SOMEWHAT SERIOUS":

I. Now, of these problems, which would you rate as the most serious in (CITY) (TOWNSHIP)? (READ PROBLEMS REPORTED AS "SOMEWHAT SERIOUS" IN Q. 7 A-G)

_____ 58-

8. Now, let me ask you about problems here in your own neighborhood--right where you live. First, recreation areas and programs--would you rate them very serious, somewhat serious, or not serious? (ASK ABOUT EACH ITEM BELOW)

	Very serious	Somewhat serious	Not serious	Don't know	
A. Recreation areas and programs	1	2	3	y	59-
B. Unemployment	1	2	3	y	60-
C. Air pollution	1	2	3	y	61-
D. Race problems	1	2	3	y	62-
E. Garbage and refuse collection and disposal	1	2	3	y	63-
F. Juvenile delinquency	1	2	3	y	64-
G. _____? (PROBLEM MENTIONED IN Q. 7 G)	1	2	3	y	65-

ASK IF MORE THAN ONE ITEM CODED "VERY SERIOUS" ABOVE:

H. Now, of the following problems, which would you rate as the most serious problem in your neighborhood? (READ PROBLEMS REPORTED AS "VERY SERIOUS" IN Q. 8 A-G)

_____ 66-

ASK IF MORE THAN ONE PROBLEM CODED "SOMEWHAT SERIOUS" ABOVE:

I. Now, of the following problems, which would you rate as the most serious in your neighborhood? (READ PROBLEMS REPORTED AS "SOMEWHAT SERIOUS" IN Q. 8 A-G)

_____ 67-

9. Have you ever moved from one neighborhood to another because of any of these problems? First ...

A. ... Recreation areas and programs?

Yes 68- 1
No 2

B. ... Unemployment?

Yes 69- 1
No 2

C. ... Air pollution?

Yes 70- 1
No 2

D. ... Race problems?

Yes 71- 1
No 2

E. ... Have you ever moved from one neighborhood to another because of garbage and refuse collection and disposal?

Yes 72- 1
No 2

F. ... Juvenile delinquency?

Yes 73- 1
No 2

G. ... _____? (PROBLEM MENTIONED IN Q. 7 G)

Yes 74- 1
No 2

79- 1

80- 1

_____ CARD II
(1-4)

10. Have you ever felt like complaining to some authority or agency about the kinds of problems we've been discussing?

First, how about recreation areas and programs?

Yes . .(GO TO A) . . . ☐ *

No . .(SKIP TO Q. 11) 5- 1

*IF YES: A. Did you actually make the complaint?

Yes . .(ASK B-D) . . . 2+

No . .(ASK E-G) . . . 3#

+IF YES TO Q. 10 A, ASK B-D:

B. What complaint did you make?

6-

C. To whom did you complain? (What is his/her job?)

7-

D. What was done about your complaint?

8-

#IF NO TO Q. 10 A, ASK E-G:

E. What would your complaint have been?

9-

F. To whom did you feel like complaining? (What is his/her job?)

10-

G. Could you tell me why you did not make the complaint?

11-

11. How about unemployment? Have you ever felt like complaining to some authority or agency about unemployment?

Yes . . (GO TO A) . . . ☐ *
No . . (SKIP TO Q. 12) 12- 1

*IF YES: A. Did you actually make the complaint?

Yes . . (ASK B-D) . . . 2+
No . . (ASK E-G) . . . 3#

+IF YES TO Q. 11 A, ASK B-D:

B. What complaint did you make?

13-

C. To whom did you complain? (What is his/her job?)

14-

D. What was done about your complaint?

15-

#IF NO TO Q. 11 A, ASK E-G:

E. What would your complaint have been?

16-

F. To whom did you feel like complaining? (What is his/her job?)

17-

G. Could you tell me why you did not make the complaint?

18-

12. How about air pollution? Have you ever felt like complaining to some authority or agency about air pollution?

Yes . . (GO TO A) . . . ☐ *

No . . (SKIP TO Q. 13). 19- 1

*IF YES: A. Did you actually make the complaint?

Yes . . (ASK B-D) . . . 2+

No . . (ASK E-G) . . . 3#

+IF YES TO Q. 12 A, ASK B-D:

B. What complaint did you make?

20-

C. To whom did you complain? (What is his/her job?)

21-

D. What was done about your complaint?

22-

#IF NO TO Q. 12 A, ASK E-G:

E. What would your complaint have been?

23-

F. To whom did you feel like complaining? (What is his/her job?)

24-

G. Could you tell me why you did not make the complaint?

25-

13. How about race problems? Have you ever felt like complaining to some authority or agency about race problems?

Yes . . (GO TO A) . . . ☐ *

No . . (SKIP TO Q. 14) 26- 1

*IF YES: A. Did you actually make the complaint?

Yes . . (ASK B-D) . . . 2+

No . . (ASK E-G) . . . 3#

+IF YES TO Q. 13 A, ASK B-D:

B. What complaint did you make?

27-

C. To whom did you complain? (What is his/her job?)

28-

D. What was done about your complaint?

29-

#IF NO TO Q. 13 A, ASK E-G:

E. What would your complaint have been?

30-

F. To whom did you feel like complaining? (What is his/her job?)

31-

G. Could you tell me why you did not make the complaint?

32-

14. How about garbage and refuse collection and disposal problems? Have you ever felt like complaining to some authority or agency about garbage and refuse collection and disposal?

Yes . . (GO TO A) . . . ☐* 33- 1

No . . (SKIP TO Q. 15) 2

*IF YES: A. Did you actually make the complaint?

Yes . . (ASK B-D) . . . 2+

No . . (ASK E-G) . . . 3#

+IF YES TO Q. 14 A, ASK B-D:

B. What complaint did you make?

34-

C. To whom did you complain? (What is his/her job?)

35-

D. What was done about your complaint?

36-

#IF NO TO Q. 14 A, ASK E-G:

E. What would your complaint have been?

37-

F. To whom did you feel like complaining? (What is his/her job?)

38-

G. Could you tell me why you did not make the complaint?

39-

15. How about juvenile delinquency? Have you ever felt like complaining to some authority or agency about juvenile delinquency?

Yes . . (GO TO A) . . . . ☐*

No . . (SKIP TO Q. 16) . 40- 1

*IF YES: A. Did you actually make the complaint?

Yes . . (ASK B-D) . . . . 2+

No . . (ASK E-G) . . . . 3#

+IF YES TO Q. 15 A, ASK B-D:

B. What complaint did you make?

41-

C. To whom did you complain? (What is his/her job?)

42-

D. What was done about your complaint?

43-

#IF NO TO Q. 15 A, ASK E-G:

E. What would your complaint have been?

44-

F. To whom did you feel like complaining? (What is his/her job?)

45-

G. Could you tell me why you did not make the complaint?

46-

16. How about _____ (PROBLEM MENTIONED IN Q. 7 G)? Have you ever felt like complaining to some authority or agency about _____?

Yes . . (GO TO A) . . . ☐* 47- 1

No . . (SKIP TO Q. 17) 47- 1

*IF YES: A. Did you actually make the complaint?

Yes . . (ASK B-D) . . . 2+

No . . (ASK E-G) . . . 3#

+IF YES TO Q. 16 A, ASK B-D:

B. What complaint did you make?

48-

C. To whom did you complain? (What is his/her job?)

49-

D. What was done about your complaint?

50-

#IF NO TO Q. 16 A, ASK E-G:

E. What would your complaint have been?

51-

F. To whom did you feel like complaining? (What is his/her job?)

52-

G. Could you tell me why you did not make the complaint?

53-

17. Up till now we've asked about actually complaining to someone in authority. How about just talking the problem over with somebody. (HAND RESPONDENT CARD A) Which of the persons on this card would you most likely talk to about recreation areas and programs--just give me the letter of the person you would talk with if this problem bothered you? (ENTER NUMBER IN BLANKS BELOW)

Recreation areas and programs? _____ 54-

---

18. Who would you talk to about unemployment?

_____ 55-

---

19. How about air pollution?

_____ 56-

---

20. Race problems?

_____ 57-

---

21. Who would you talk with about garbage and refuse collection and disposal?

_____ 58-

---

22. Juvenile delinquency?

_____ 59-

---

23. _____ (PROBLEM MENTIONED IN Q. 7 B)

_____ 60-

---

24. How good a job do you think your officials in (CITY) (TOWNSHIP) are doing in dealing with problems like these? Do you think they're very effective, somewhat effective, somewhat ineffective, or very ineffective?

(VERBATIM COMMENT, IF ANY)

Very effective 61- 1
Somewhat effective 2
Somewhat ineffective 3
Very ineffective 4

25. How would you rate your health at the present time--excellent, good, fair, poor, or very poor?

Excellent	62-	1
Good		2
Fair		3
Poor		4
Very poor		5

---

26. Do you have any of these medical probiems?

A. Heart trouble?

Yes	63-	1
No		2

B. Lung trouble?

Yes	64-	1
No		2

C. Allergies?

Yes	65-	1
No		2

79- 2

80- 1

CARD III

(1-4)

Earlier we discussed a number of issues that face many communities. I'd like to ask about one of them in a little more detail.

27. As far as this area goes, how would you rate the quality of the air in this neighborhood right around here where you live? (HAND RESPONDENT CARD B) Which statement on that card most closely represents your feeling?

Strongly satisfied	5-	1
Satisfied		2
Mildly satisfied		3
Mildly dissatisfied		4
Dissatisfied		5
Strongly dissatisfied . . .		6
Don't know		y

---

28. The term "air pollution" is used occasionally nowadays. What does it mean to you?

6-

7-

8-

9-

10-

29. Do you think air pollution harms people's health?

Yes	11-	1
No		2

---

30. What do you think most people in this area think of when they speak of "air pollution"? Would you guess they mean--

A. Frequent bad smells in the air?

Yes	12-	1
No		2

B. Too much dust and dirt?

Yes	13-	1
No		2

C. Frequent haze or fog?

Yes	14-	1
No		2

D. Frequent irritation of the eyes?

Yes	15-	1
No		2

E. When they speak of air pollution, do you think people think of <u>laundry getting dirty on the line</u>?

Yes	16-	1
No		2

F. Frequent nose or throat irritation?

Yes	17-	1
No		2

G. Would you guess there are any other things people think of when they talk about "air pollution"?

18-

19-

---

31. Which of these statements comes closest to describing how you are affected by air pollution? (READ CODES)

"I haven't been bothered by air pollution at all"	20-	1
"I've been bothered by air pollution somewhat"		2
"I have been bothered quite a lot by it"		3

32. As you see it, is there any air pollution here in this neighborhood?

Yes . . (ASK A AND B) . . 21- 1*
No . . (SKIP TO Q. 35) . 2

*IF YES:

A. What seasons of the year is air pollution a problem? (CODE AS MANY AS APPLY)

Spring 1 22-
Summer 2 23-
Fall 3 24-
Winter 4 25-
Sporadic . . . 5 26-
27-

B. Who do you think causes the air pollution that affects this neighborhood?

28-

29-

33. Do you think factories are <u>important</u> or <u>not important</u> in causing air pollution that affects this neighborhood?

A. Factories
Important 30- 1
Not important 2

B. Is smoke from houses <u>important</u> or <u>not important</u>?
Important 31- 1
Not important 2

C. Business and other buildings?
Important 32- 1
Not important 2

D. Buses and trucks?
Important 33- 1
Not important 2

E. Are autos <u>important</u> or <u>not important</u> in causing air pollution here?
Important 34- 1
Not important 2

F. What about garbage and refuse dumps?
Important 35- 1
Not important 2

(CONTINUE Q. 33 ON NEXT PAGE)

33. (Continued)

G. What about people burning leaves and trash in their yard--is that <u>important</u> or <u>not important</u> in causing air pollution here?

Important	36-	1
Not important		2

H. Are odors from sewage <u>important</u> or <u>not important</u> in causing the air pollution here?

Important	37-	1
Not important		2

I. What about ragweed and other causes of hay fever?

Important	38-	1
Not important		2

J. What about street and road dust--how important is it in causing air pollution?

Important	39-	1
Not important		2

---

34. Do you believe that air pollution around here can be <u>eliminated completely</u>, <u>can be reduced below its present level</u>, or that it <u>cannot be reduced at all</u>?

Eliminated completely	40-	1
Reduced		2
Cannot be reduced at all . . .		3

There are some places in the greater St. Louis area where air pollution is a problem.

35. Assuming that something could be done about it, do you think some government body should do something about air pollution?

Yes . . . (ASK A).	41-	1*
No		2

*IF YES:

A. Which <u>one</u> of these do you think should take the leadership? (HAND RESPONDENT CARD C)

City government 1		42-
County government 2		43-
A combined agency for this side of the river 3		44-
A bi-state agency covering the whole metropolitan area 4		45-
State government 5		46-
Federal government 6		47-

36. Do you think the following organizations are doing all they should about air pollution now? First ... (READ AGENCIES BELOW)

A.	Local government?	Yes	48- 1
		No	2
B.	County government?	Yes	49- 1
		No	2
C.	State government?	Yes	50- 1
		No	2
D.	Citizens' groups?	Yes	51- 1
		No	2
E.	Industry?	Yes	52- 1
		No	2
F.	The individual citizen?	Yes	53- 1
		No	2

---

37. A. Do you think your officials here in (CITY) (TOWNSHIP) would cooperate with other local governments to develop an area-wide air pollution control program for <u>this side of the river</u>?

Yes 54- 1
No 2
Don't know . . y

B. Do you think your officials here in (CITY) (TOWNSHIP) would cooperate with other local governments to develop an area-wide pollution control program--one that would cover <u>both sides of the river</u>?

Yes 55- 1
No 2
Don't know . . y

---

38. If air pollution control would mean additional taxes of about one dollar a year, would you support the effort?

Yes 56- 1
No 2
Don't know . . y

---

39. If the cost of living went up about five dollars a year because companies had to spend money to control their air pollution, would you support their effort?

Yes 57- 1
No 2

40. Does air pollution affect any of the following?

A. First, where you shop?	Yes . . .	58- 1
	No . . .	2
B. Where (the head of the house) (you) choose to work?	Yes . . .	59- 1
	No . . .	2
C. The price your home would sell or rent for?	Yes . . .	60- 1
	No . . .	2
D. Does air pollution affect how often you wash your car?	Yes . . .	61- 1
	No . . .	2
E. Care and upkeep of your house?	Yes . . .	62- 1
	No . . .	2
F. Personal cleanliness?	Yes . . .	63- 1
	No . . .	2
G. The reputation of the area where you live?	Yes . . .	64- 1
	No . . .	2
H. How often you clean curtains or drapes?	Yes . . .	65- 1
	No . . .	2
		79- 3
		80- 1

BEGIN CARD IV

(1-4) _____

41. Have you ever heard about air pollution from any of these sources?

A. Newspapers?	Yes . . .	5- 1
	No . . .	2
B. Television?	Yes . . .	6- 1
	No . . .	2
C. Have you heard about air pollution from magazines?	Yes . . .	7- 1
	No . . .	2
D. Someone in local government?	Yes . . .	8- 1
	No . . .	2
E. Someone in a community-wide citizens' organization?	Yes . . .	9- 1
	No . . .	2
F. Someone in a neighborhood organization?	Yes . . .	10- 1
	No . . .	2
G. Have you heard about air pollution from a doctor?	Yes . . .	11- 1
	No . . .	2
H. From a friend or relative?	Yes . . .	12- 1
	No . . .	2
		13-

42. Sometimes people's satisfaction is affected by their preferences in local politics. For this reason we would like to know which political party you prefer at the local level.

Democrat	14-	1
Republican		2
Independent		3
Refused		4

---

43. How would you rank the level of air pollution in this neighborhood? Would you say it is desirable, acceptable, undesirable, excessive or intolerable?

Desirable	15-	1
Acceptable		2
Undesirable		3
Excessive		4
Intolerable		5

---

44. Finally, I'd like to ask a few more questions about you and your family.

What is the highest grade in school you completed?

0 - 4 years	16-	1
5 - 6 years		2
7 - 8 years		3
9 - 11 years		4
12 years (high school graduate)		5
1 - 3 years college		6
4 years college or more		7

---

45. What is your marital status?

Currently married	17-	1
Widowed		2
Divorced, separated		3
Single, never married		4

---

46. What does the head of the house usually do--work full-time, work part-time, or something else?

Work full-time	18-	1
Work part-time		2
Unemployed		3
Laid off or on strike		4
Retired		5
Other (SPECIFY) _____		6

47. Where (does) (did) the head of the house work?

Name of company _____ 19-

20-

City _____ State _____ 21-

22-

23-

24-

---

48. What do they do there?

25-

26-

---

49. What kind of work (does) (did) (he) (she) do there? (What does he actually do on that job?)

27-

28-

IF RETIRED OR UNEMPLOYED, SKIP Q. 50

50. A. How does the head usually get to work?

Drives alone 29- 1

Drives with others 2

Public transportation 3

Walks 4

Other (SPECIFY) _____ 5

B. How long does it usually take to get to work from where you live?

30-

C. <u>IF MORE THAN 20 MINUTES</u>:

Why (don't you) (doesn't he) live closer to work?

31-

32-

33-

INTERVIEWER REMARKS

A. Race of respondent:

White 40- 1
Negro 2
Oriental . . 3
Other 4

B. Sex of respondent:

Male 41- 1
Female . . . 2

C. Area code--for office use: 42-

43-

D. Respondent's interest in air pollution. (CIRCLE ONE)

EXCEPTIONALLY HIGH: Respondent spoke with animation and wanted to talk at length on the subject 44- 1

HIGH: Respondent made spontaneous comments to amplify or explain his remarks. Spoke with feeling but could be kept to the point 2

AVERAGE: Respondent answered questions without being pushed, but didn't volunteer comments 3

LOW: Respondent didn't want to talk about air pollution; seemed to know or care little about the subject 4

Time Interview Ended: _____

Total Length of Interview: _____

Date of Interview: _____, 1963

Interviewer's Signature _____

45-
46-
47-
48-
49-
50-
51-
52-
53-
79- 4
80- 1

APPENDIX B

CORRELATION BETWEEN PERCEPTION OF AIR POLLUTION BY SAMPLE POPULATION AND AIR SAMPLING MEASUREMENTS

Figures 1 and 2 show the relationship between response to the question, As you see it, is there any air pollution here in this neighborhood? and two physical measurements of air pollution, sulfation and suspended particulates. Sulfation is a measurement of sulfur dioxide and other reactive sulfur compounds in the air. The lead peroxide candle which collects the sulfation sample is exposed for a month's period and therefore represents a relatively long-time average. The results reported are the means of 12 such samples for the period February 1, 1963 to February 1, 1964. The second measurement of air pollution, suspended particulate matter, is made by filtering particulate matter from the air. The filter is called a high volume (Hi-Vol) sampling unit and is widely used by air pollution agencies and groups such as the National Air Sampling Network of the U. S. Public Health Service. People perceive both of the air pollutants less readily than they do odors, but perceive them more readily than they do pollutants such as carbon monoxide.

The actual pollutant values for constructing the graphs are from isopleth maps of pollutant levels. These maps provide for interpolation of levels between stations where measurements were actually made.

The percent values of response to the question, As you see it, is there any air pollution here in this neighborhood? are based on the numbers of people interviewed in 10,000 foot by 10,000 foot map grid cells. They are the percent of "Yes" responses to that question in those grid cells. As such, they are based on varying numbers of respondents. Since a 10,000 foot by 10,000 foot grid cell covers considerable area, there is some possibility of unequal distribution of both respondents and air pollutants in the cell.

Figure 1 shows a correlation coefficient of 0.80 between the percent affirmative responses to the question, As you see it, is there any air pollution here in this neighborhood? and suspended particulate annual geometric means. A practical application of figure 1 would be in ambient air quality standard setting where it might be determined that the standard should satisfy 80 percent of the people, in which case a suspended particulate standard of 75 micrograms per cubic meter annual geometric mean would be selected. Figure 2 is similar to figure 1, but indicates the relationship between percent affirmative responses to the question and sulfation reported as micrograms of sulfur trioxide per 100 square centimeters per day. If this graph were used as a tool to set ambient air quality standards or goals, a value of slightly over 0.7 would be the level which would satisfy approximately 80 percent of the population. As one would expect with a pollutant not as readily perceived, the correlation coefficient (0.71) is somewhat less than that involving suspended particulates. Figure 2 also compares St. Louis County, St. Louis City, and the Illinois area. In general, the air pollution levels increase in the order named as do the percentages of affirmative responses.

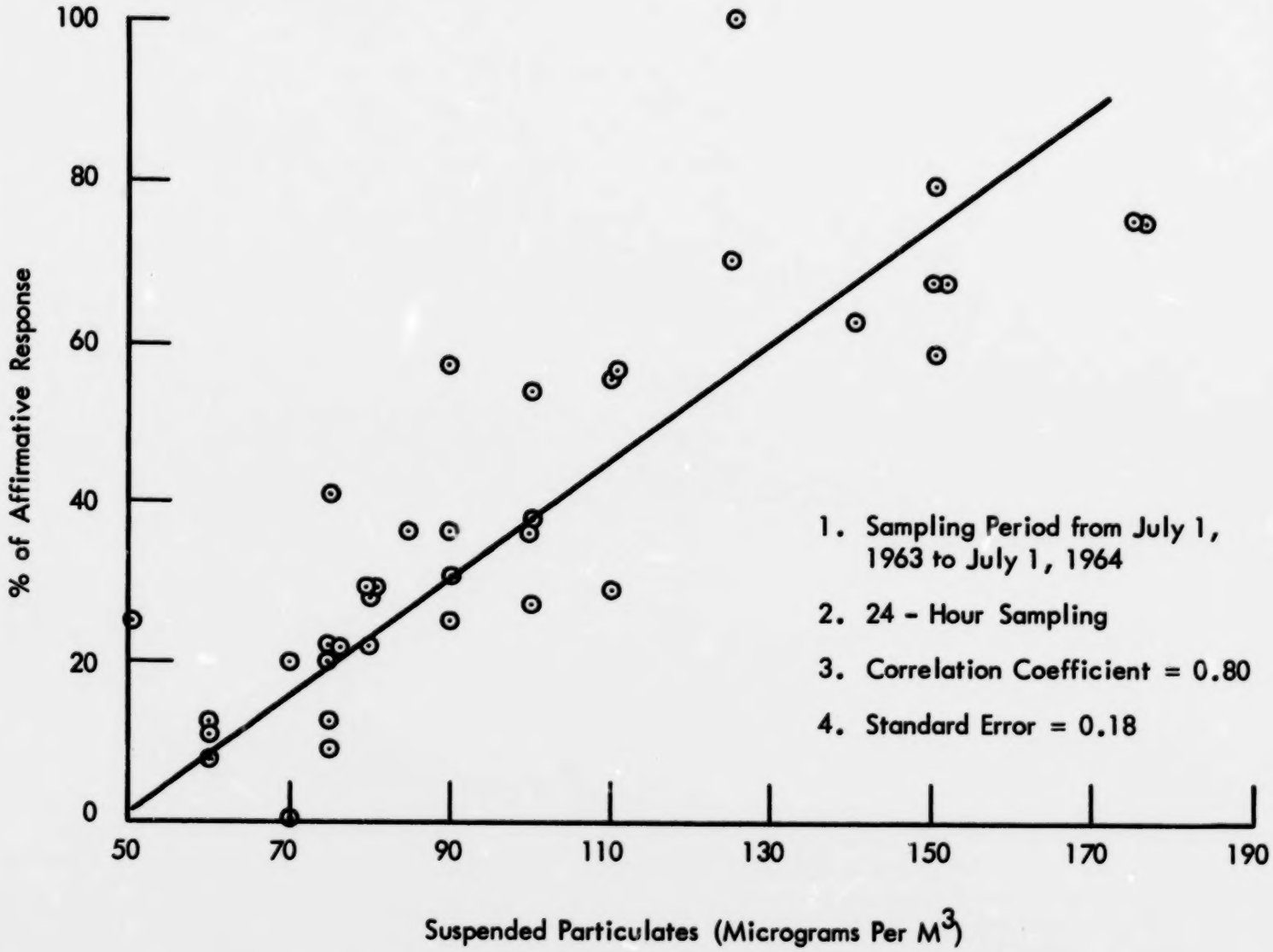

Fig. 1 Affirmative Response to Question, "As You See It, Is There Any Air Pollution Here In This Neighborhood?" vs. Hi-Vol Sampling Annual Geometric Means.

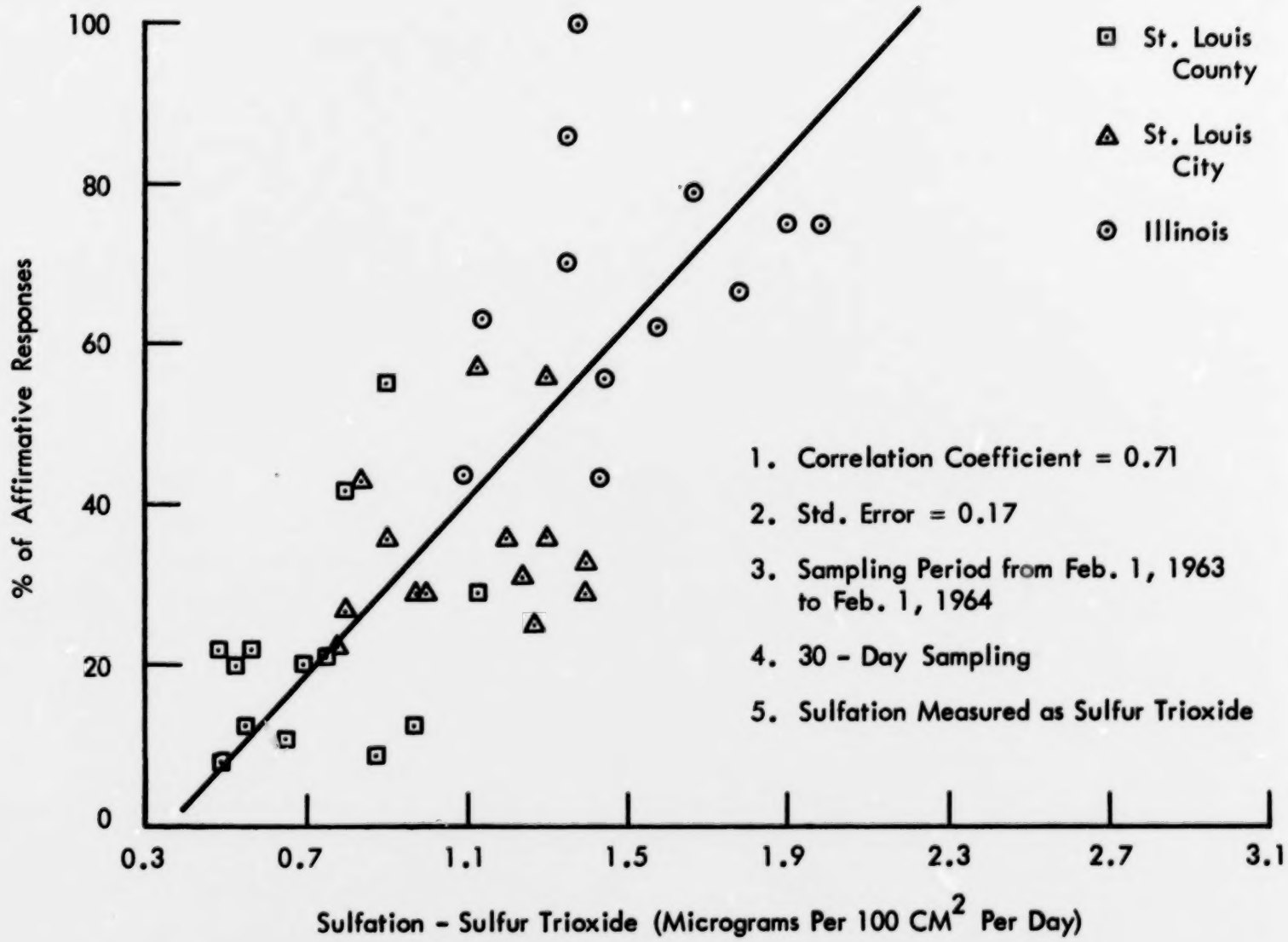

Fig. 2 Affirmative Response to Question, "As You See It, Is There Any Air Pollution Here In This Neighborhood?" vs. Sulfation Annual Geometric Means.

APPENDIX C
SUPPLEMENTARY TABLES

Table I

Rating of City (Township) As A Place To Live

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Excellent	120	37.0	67	21.1	83	23.4
Good	157	48.5	143	44.9	166	46.7
Fair	38	11.7	90	28.3	84	23.7
Poor	7	2.2	14	4.4	18	5.1
Very Poor	2	0.6	4	1.3	4	1.1
Don't Know	1					
No Answer	2		2			
Base	327	324	320	318	355	355

Table II

Length of Residence in Greater St. Louis Area

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Under 6 mo.	2	0.6			3	0.8
6 mo. to 1 yr.	6	1.8	3	0.9	4	1.1
1 to less than 3 yrs.	9	2.8	5	1.6	10	2.8
3 to less than 5 yrs.	12	3.7	5	1.6	13	3.7
5 to 10 yrs.	22	6.7	19	6.0	24	6.8
10 to 15 yrs.	17	5.2	31	9.7	21	5.9
15 to 20 yrs.	18	5.5	29	9.1	29	8.2
20 to 30 yrs.	47	14.4	57	17.9	68	19.2
30 to 40 yrs.	75	22.9	51	16.0	52	14.6
40 yrs. and over	119	36.4	118	37.2	131	36.9
No Answer			2			
Base	327	327	320	318	355	355

Table III

Length of Residence in (This County) (St..Louis City)

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Under 6 mo.	8	2.5	4	1.3	4	1.1
6 mo. to 1 yr.	9	2.8	4	1.3	8	2.3
1 to less than 3 yrs.	27	8.3	9	2.8	19	5.4
3 to less than 5 yrs.	27	8.3	7	2.2	19	5.4
5 to 10 yrs.	71	21.8	27	8.5	39	11.0
10 to 15 yrs.	40	12.3	33	10.4	28	7.9
15 to 20 yrs.	23	7.0	28	8.8	26	7.3
20 to 30 yrs.	47	14.4	54	17.0	64	18.1
30 to 40 yrs.	37	11.3	54	17.0	46	13.0
40 yrs. and over	37	11.3	97	30.7	101	28.5
No Answer	1		3			
Base	327	326	320	317	355	354

Table IV

Length of Residence in This Neighborhood

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Under 6 mo.	20	6.1	27	8.5	17	4.8
6 mo. to 1 yr.	20	6.1	15	4.7	22	6.2
1 to less than 3 yrs.	49	15.0	48	15.0	55	15.5
3 to less than 5 yrs.	37	11.3	26	8.2	55	15.5
5 to 10 yrs.	91	27.9	72	22.6	57	16.0
10 to 15 yrs.	43	13.1	42	13.2	35	9.9
15 to 20 yrs.	15	4.6	17	5.3	26	7.3
20 to 30 yrs.	21	6.4	33	10.3	32	9.0
30 to 40 yrs.	13	4.0	14	4.4	26	7.3
40 yrs. and over	18	5.5	25	7.8	30	8.5
No Answer			1			
Base	327	327	320	319	355	355

Table V

Have You Ever Moved from One Neighborhood to Another Because of Lack of Recreation Areas and Programs?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	11	3.4	8	2.5	3	0.9
No	315	96.6	311	97.5	349	99.1
No Answer	1		1		3	
Base	327	326	320	319	355	352

Table VI

Have You Ever Moved from One Neighborhood to Another Because of Unemployment?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	7	2.2	13	4.1	40	11.3
No	318	97.8	305	95.9	313	88.7
No Answer	2		2		2	
Base	327	325	320	318	355	353

Table VII

Have You Ever Moved from One Neighborhood to Another Because of Air Pollution?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	10	3.1	8	2.5	21	6.0
No.	315	96.9	309	97.5	329	94.0
No Answer	2		3		5	
Base	327	325	320	317	355	350

Table VIII

Have You Ever Moved from One Neighborhood to Another Because of Race Problems?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	30	9.3	17	5.4	27	7.7
No	292	90.7	298	94.6	324	92.3
No Answer	5		5		4	
Base	327	322	320	315	355	351

Table IX

Have You Ever Moved from One Neighborhood to Another Because of Problems of Garbage and Refuse Collection and Disposal?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	1	0.3	7	2.2	1	0.3
No	323	99.7	311	97.8	349	99.7
No Answer	3		2		5	
Base	327	324	320	318	355	350

Table X

Have You Ever Moved from One Neighborhood to Another Because of Juvenile Delinquency?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	13	4.0	8	2.5	8	2.3
No	312	96.0	309	97.5	343	97.7
No Answer	2		3		4	
Base	327	325	320	317	355	351

Table XI

Ever Hear About Air Pollution from Newspaper?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes.	249	76.1	175	54.9	220	62.0
No.	78	23.9	144	45.1	135	38.0
No Answer			1			
Base	327	327	320	319	355	355

Table XII

Ever Hear About Air Pollution from Television?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes.	174	53.5	117	36.7	194	54.6
No.	151	46.5	202	63.3	161	45.4
No Answer	2		1			
Base	327	325	320	319	355	355

Table XIII

Ever Hear About Air Pollution from Magazines?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	161	49.2	113	35.6	142	40.2
No	166	50.8	204	64.4	211	59.8
No Answer			3		2	
Base	327	327	320	317	355	353

Table XIV

Ever Hear About Air Pollution from Someone in Local Government?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	46	14.2	39	12.3	24	6.8
No.	278	85.8	278	87.7	330	93.2
No Answer	3		3		1	
Base	327	324	320	317	355	354

Table XV

Ever Hear About Air Pollution from Someone in a Community-Wide Citizens' Organization?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	36	11.1	28	8.9	44	12.5
No	288	88.9	288	91.1	309	87.5
No Answer	3		4		2	
Base	327	324	320	316	355	353

Table XVI

Ever Hear About Air Pollution from Someone in a Neighborhood Organization?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	24	7.4	36	11.3	35	9.9
No	301	92.6	282	88.7	318	90.1
No Answer	2		2		2	
Base	327	325	320	318	355	353

Table XVII

Ever Hear About Air Pollution from a Doctor?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	36	11.1	36	11.3	65	18.4
No	288	88.9	282	88.7	289	81.6
No Answer	3		2		1	
Base	327	324	320	318	355	354

Table XVIII

Ever Hear About Air Pollution from a Friend or Relative?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	104	32.0	86	26.9	146	41.2
No	221	68.0	234	73.1	208	58.8
No Answer	2				1	
Base	327	325	320	320	355	354

Table XIX

Does Air Pollution Harm Health?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	288	92.0	241	83.4	312	93.1
No	25	8.0	48	16.6	23	6.9
No Answer	14		31		20	
Base	327	313	320	289	355	335

Table XX

Health

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Excellent	149	45.6	84	26.3	97	27.3
Good	126	38.5	124	38.7	175	49.4
Fair	39	11.9	88	27.5	66	18.6
Poor	12	3.7	18	5.6	14	3.9
Very Poor	1	0.3	6	1.9	3	0.8
Base	327	327	320	320	355	355

Table XXI

Have Heart Trouble?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	24	7.3	37	11.8	27	7.6
No	303	92.7	277	88.2	326	92.4
No Answer			6		2	
Base	327	327	320	314	355	353

Table XXII

Have Lung Trouble?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	10	3.1	9	2.9	19	5.4
No	317	96.9	301	97.1	334	94.6
No Answer			10		2	
Base	327	327	320	310	355	353

Table XXIII

Have Allergies?

Response:	St. Louis County No.	St. Louis County Percent	St. Louis City No.	St. Louis City Percent	Illinois No.	Illinois Percent
Yes	54	16.6	43	13.7	60	17.0
No	271	83.4	272	86.3	292	83.0
No Answer	2		5		3	
Base	327	325	320	315	355	352

Table XXIV

Rank of Air Pollution in Neighborhood?

Response:	St. Louis County No.	St. Louis County Percent	St. Louis City No.	St. Louis City Percent	Illinois No.	Illinois Percent
Desirable	177	54.3	96	30.2	102	29.0
Acceptable	127	39.0	189	59.5	191	54.2
Undesirable	18	5.5	28	8.8	38	10.8
Excessive	1	0.3	3	0.9	12	3.4
Intolerable	3	0.9	2	0.6	9	2.6
No Answer	1		2		3	
Base	327	326	320	318	355	352

Table XXV

Rate Quality of Air in Neighborhood?

Response:	St. Louis County No.	St. Louis County Percent	St. Louis City No.	St. Louis City Percent	Illinois No.	Illinois Percent
Strongly Satisfied	104	31.9	42	13.2	68	19.3
Satisfied	158	48.5	165	52.1	164	46.6
Mildly Satisfied	35	10.7	65	20.5	47	13.4
Mildly Dissatisfied	12	3.7	21	6.6	30	8.5
Dissatisfied	10	3.1	12	3.8	23	6.5
Strongly Dissatisfied	7	2.1	12	3.8	20	5.7
Don't Know	1		2		3	
No Answer			1			
Base	327	326	320	317	355	352

Table XXVI

Can Air Pollution Be Eliminated?

Response:	St. Louis County No.	St. Louis County Percent	St. Louis City No.	St. Louis City Percent	Illinois No.	Illinois Percent
Can Be Eliminated Completely	28	26.7	15	10.4	14	6.9
Can Be Reduced	56	53.3	112	77.8	159	77.9
Cannot Be Reduced At All	21	20.0	17	11.8	31	15.2
No Air Pollution in Neighborhood	222		176		151	
Base	327	105	320	144	355	204

Table XXVII

Should Some Government Body Do Something About Air Pollution?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Yes	275	90.2	267	91.8	309	92.0
No	30	9.8	24	8.2	27	8.0
No Answer	22		29		19	
Base	327	305	320	291	355	336

Table XXVIII

Complaint Attitude About Air Pollution

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Never Wanted to Complain	290	89.5	279	87.5	265	75.1
Wanted to Complain	26	8.0	32	10.0	64	18.1
Did Complain	8	2.5	8	2.5	24	6.8
No Answer	3		1		2	
Base	327	324	320	319	355	353

Table XXIX

What Complaint Actually Made About Air Pollution?

	St. Louis County		St. Louis City		Illinois	
Complain About:	No.	Percent	No.	Percent	No.	Percent
Factories (Smoke)	3	37.5	4	50.0	8	33.3
Exhaust from Transport			1	12.5	1	4.2
Refuse Burning	1	12.5	1	12.5	2	8.3
Sewers	1	12.5				
Odors (Except Above)	1	12.5	2	25.0	3	12.5
Dust					4	16.7
General-Poor Air					5	20.8
Other	2	25.0			1	4.2
No Complaint Made	319		312		331	
Base	327	8	320	8	355	24

Table XXX

To Whom Was Air Pollution Complaint Made?

Complain To:	St. Louis County		St. Louis City		Illinois	
	No.	Percent	No.	Percent	No.	Percent
Mayor (City Hall)	1	12.5			6	25.0
Aldermen or Council			2	25.0	5	20.8
Air Pollution Control Board	2	25.0				
Health Department	1	12.5	1	12.5	1	4.2
Owners of Pollutant Agent			2	25.0	7	29.1
Other Local Officials	1	12.5	2	25.0	3	12.5
Federal Officials					1	4.2
Other	3	37.5	1	12.5	1	4.2
No Complaint Made	319		312		331	
Base	327	8	320	8	355	24

Table XXXI

What Was Done About Air Pollution Complaint?

Done About Complaint:	St. Louis County		St. Louis City		Illinois	
	No.	Percent	No.	Percent	No.	Percent
Nothing	2	25.0	2	25.0	13	54.1
Don't Know, Apparently Nothing	1	12.5	1	12.5	1	4.2
Complaint Rectified Completely	1	12.5	3	37.5	4	16.7
Complaint Rectified Partially	4	50.0	2	25.0	5	20.8
Some Retribution Against Complainant					1	4.2
No Complaint Made	319		312		331	
Base	327	8	320	8	355	24

Table XXXII

What Would Complaint Have Been About Air Pollution?

	St. Louis County		St. Louis City		Illinois	
Complaint Desired:	No.	Percent	No.	Percent	No.	Percent
Factories (Smoke)	4	15.4	14	43.7	29	45.2
Exhaust from Transport	4	15.4	3	9.4	3	4.7
Refuse Burning	1	3.8			1	1.6
Sewers	8	30.8			2	3.1
Odors (Except Above)	3	11.5	8	25.0	9	14.1
Dust	4	15.4	2	6.3	6	9.4
General-Poor Air	2	7.7	4	12.5	9	14.1
Other			1	3.1	5	7.8
Complaint Made	8		8		24	
Complaint Not Made or Desired	293		280		267	
Base	327	26	320	32	355	64

Table XXXIII

To Whom Did You Feel Like Complaining About Air Pollution?

	St. Louis County		St. Louis City		Illinois	
Felt Like Complaining To:	No.	Percent	No.	Percent	No.	Percent
Mayor (City Hall)	2	8.3	3	10.3	17	27.4
Aldermen or Council	1	4.2	2	6.9	7	11.3
Air Pollution Control Board			1	3.4	1	1.6
Health Department	5	20.8	3	10.3	3	4.8
Owners of Pollutant Agent	2	8.3	2	6.9	5	8.1
Other Local Officials	3	12.5	2	6.9	5	8.1
State Official					5	8.1
Federal Official					1	1.6
Other	1	4.2	2	6.9	2	3.2
Didn't Know to Whom to Complain	10	41.7	14	48.4	16	25.8
Complaint Made	8		8		24	
Complaint Not Made or Desired	293		280		267	
No Answer	2		3		2	
Base	327	24	320	29	355	62

Table XXXIV

Why Did You Not Make Air Pollution Complaint?

	St. Louis County		St. Louis City		Illinois	
Not Complain Because:	No.	Percent	No.	Percent	No.	Percent
Nothing Would Have Been Done	1	4.2	9	30.1	16	26.7
Didn't Know to Whom to Complain	7	29.2	6	20.0	9	15.0
Was Afraid to Retribution or Trouble			2	6.7	6	10.0
Not Sufficiently Motivated	8	33.3	7	23.3	16	26.7
Not Enough Support in Area			1	3.3	3	5.0
Felt Unqualified to Make Complaint	2	8.3	1	3.3	4	6.6
Problem Solved without Complaint	3	12.5	1	3.3		
Others Had Already Complained	3	12.5	3	10.0	5	8.3
Complaint Not Entirely Justified					1	1.7
Complaint Made	8		8		24	
Complaint Not Made or Desired	293		280		267	
No Answer	2		2		4	
Base	327	24	320	30	355	60

Table XXXV

To Whom Would You Talk About Air Pollution Problems?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Doctor	40	13.7	33	13.3	63	20.0
People at Work	4	1.4	8	3.2	7	2.2
Neighbors	64	21.9	54	21.7	81	25.7
Friends Outside the Neighborhood	6	2.0	5	2.0	13	4.1
Husband or Wife	25	8.5	33	13.3	32	10.1
Other Relatives	7	2.4	15	6.0	6	1.9
Minister or Priest	3	1.0	1	0.4	2	0.6
Precinct Committeeman	129	44.1	82	32.9	87	27.6
Union Official	2	0.7	4	1.6		
Welfare Worker	4	1.4	9	3.6	13	4.1
Teacher or Principal	1	0.3	1	0.4	1	0.3
City (County) Official	6	2.0	3	1.2	6	1.9
Health (Sanitation) Dept.	1	0.3			2	0.6
Other	1	0.3	1	0.4	3	0.9
Answer	34		71		39	
Base	327	293	320	249	355	316

Table XXXVI

Relationship of Respondent to Household Head

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Head of House	164	50.5	191	59.7	192	54.5
Spouse of Head	136	41.8	110	34.4	142	40.2
Adult Child of Head	15	4.6	9	2.8	9	2.5
Parent of Head	3	0.9	2	0.6	4	1.1
Other Relative of Head	7	2.2	7	2.2	6	1.7
Non-Relative of Head			1	0.3		
Unknown	2				2	
Base	327	325	320	320	355	353

Table XXXVII

How Does Household Head Get to Work?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Does Not Work	30	9.4	84	26.8	82	24.3
Employed at Home	2	0.6	5	1.6	12	3.6
Drives Alone	225	70.6	120	38.3	170	50.4
Drives With Others	47	14.7	34	10.9	43	12.8
Public Transportation	10	3.1	60	19.2	13	3.9
Walks	5	1.6	10	3.2	17	5.0
No Answer	8		7		18	
Base	327	319	320	313	355	337

Table XXXVIII

How Long Does It Take Household Head To Get To Work?

	St. Louis County		St. Louis City		Illinois	
Response:	No.	Percent	No.	Percent	No.	Percent
Under 5 minutes	10	3.7	6	2.9	11	4.6
5-9 minutes	17	6.3	11	5.4	42	17.5
10-14 minutes	28	10.4	25	12.3	36	15.1
15-19 minutes	43	15.9	37	18.1	36	15.1
20-24 minutes	50	18.5	37	18.1	36	15.1
25-29 minutes	19	7.0	13	6.4	11	4.6
30-39 minutes	61	22.7	38	18.7	37	15.5
40-49 minutes	35	13.0	28	13.7	22	9.2
50-59 minutes	2	0.7	1	0.5	2	0.8
60-89 minutes	3	1.1	7	3.4	6	2.5
90 minutes & over	2	0.7	1	0.5		
No Answer	57		116		116	
Base	327	270	320	204	355	239

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